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ABSTRACT

Introductory remarks to the international conference are followed by these speeches: the importance of early stimulation, preparation of the adolescent retarded for employment, instructional materials, the application of an operational philosophy for the education of the trainable, teacher training, the contribution of research to rehabilitation, education of the educable, and evaluation. Two papers consider the organization of special education in Sweden and its integration in the Malmo area. Brief summaries or statements on additional topics are also presented, including one on the system of instructional materials centers in the United States. (RJ)

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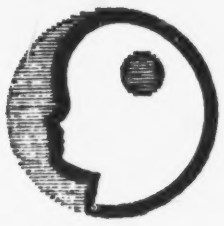

INTERNATIONAL ASSOCIATION
FOR THE SCIENTIFIC
STUDY OF MENTAL DEFICIENCY

Proceedings of the First International Seminar of Special Education and Rehabilitation of the Mentally Retarded

EC 031989

Malmö, Sweden

17 th - 21 st September 1970

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F O R E W O R D

The International Association for the Scientific Study of Mental Deficiency was organized in order to stimulate interest in extending our knowledge and information in all aspects of mental retardation. To aid in disseminating this information, scientific meetings are held from time to time. In order to increase the opportunity to discuss selected topics in depth by special interest groups, small seminars and conferences are organized under the direction of the Association. The Malmö Seminar on Special Education and Rehabilitation is one such conference. It was specifically organized in order to cover the major aspects of the education and vocational rehabilitation of the mentally retarded. Plenary speakers were selected from among the recognized authorities in the field. The conference was attended by 195 individuals from 28 countries. This is most remarkable for the first such conference. The active discussion at the panel meetings was indicative of the high quality of plenary papers; they served to stimulate discussion.

The organizers of the Malmö Seminar are deeply indebted to the speakers for the excellence of their papers and for their permission to publish them in the conference proceedings. It is hoped that these proceedings will assist in improving and extending special education and vocational rehabilitation services for the mentally retarded throughout the world. In this report have been included all lectures as well as a summary of the group discussions which followed them. We regret that for different reasons we have been unable to fulfil our promise to also publish individual discussion contributions.

The success of the Malmö Seminar encouraged the Council of the International Association for the Scientific Study of Mental Deficiency to establish a Technical Committee on Special Education and Vocational Rehabilitation. This was accomplished at a Council meeting of IASSMD on August 25, 1970 at the Warsaw Congress.

Finally a very warm thank you to all the participants for the very kind attention they paid to the Seminar. We wish to extend a special thank you to Ingemar Ekström for the praiseworthy work he did in editing the proceedings.

October 1, 1970

Harvey A Stevens
Past President, IASSMD,
and Program Chairman,
Madison, Wisconsin, USA

Ingvar Sandling
Secretary general,
Malmö, Sweden

P R O G R A M

W E L C O M E!

The members of the Program and Local Arrangements Committee have worked very hard over the past several years to bring you what we know will be an outstanding Seminar.

Outstanding scientists, clinicians and practitioners will be bringing you the latest information and knowledge available in the area of Special Education and Rehabilitation of the Mentally Retarded. The real value of this seminar will be the opportunity you will have to personally discuss these problems with the participants.

You are encouraged to participate in the panel discussions; to attend the special events being planned for you; and to enjoy the warm and friendly hospitality of our host country - Sweden - and of the citizens of Malmö.

We know you will have a most memorable time.

HARVEY A STEVENS
Program Chairman and
Past President, IASSMD

PROGRAM PLANNING COMMITTEE:

Harvey A Stevens (Chairman), Director, Bureau for Mental Retardation, Department of Health and Social Services, Madison, Wisconsin, USA

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SUNDAY, AUGUST 16, 1970

13.00-16.00 Registration at Hotel S:t Jörgen, Stora Nygatan 35, Malmö.

MONDAY, AUGUST 17, 1970

08.00 Hydrofoil Malmö - Copenhagen, leaving from Skeppsbron (near Central Railway Station)
Professional tour in the Copenhagen area.

09.00 Departure from Copenhagen (Havnegade, Hydrofoil Pier) by bus.

15.00 By hydrofoil back to Malmö

12.00-16.00 Late registration, The Secretariat, Baltzarsgatan 21, Malmö.

17.00-18.00 Opening sessions, Town Hall, Stortorget, Malmö.
Chairman: Harvey A Stevens, USA.

Representative from Malmö: Oscar Stenberg, Chairman of the City Council.

Representative from IASSMD: Stanislaw Krynski, M.D., President-elect.

Representative from the Scandinavian Society for the Scientific Study of Mental Deficiency: Niels Erik Bank-Mikkelsen, Denmark.

Representative from the European Association for Special Education: Alfred Boom, England.

Representative from the Swedish Government: Lennart Sandgren, Under Secretary, Department of Education, Stockholm, Sweden.

18.00-19.30 Reception, Town Hall (sponsored by the city of Malmö).

20.00-24.00 Banquet at Kronprinsen, Mariedalsvägen 32, Malmö.
Dress informal.

Toastmaster: Lennart Wessman, Sweden.

TUESDAY, AUGUST 18, 1970

08.00-09.00 Late registration, Pireus, Bisittaregatan 2, Malmö.

09.00-09.45 Plenary Meetings, Main Hall, Pireus.

Chairman: Erik Stenqvist, Sweden.

Speaker: Eloisa Garcia de Lorenzo, Consejero Nacional de Ensenanza Primaria y Normal, Montevideo, Uruguay.

"Early Education of the Mentally Retarded".

09.45-10.10 Coffee break - Outer Lobby.

10.15-11.00 Speaker: Paul Odebaeck, School Consultant, Swedish National Board of Education, Stockholm, Sweden.

"Preparation of the Adolescent Mentally Retarded for Employment"

11.15-12.00 Speaker: Brage Normark, Special Educator, Research Fellow, University of Wisconsin, USA.

"Instructional Materials for the Mentally Retarded".

12.00-12.15 Instructions to all Chairmen, Main Hall.

12.00-14.00 Lunch - Outer Lobby.

14.00-17.00 Group Meetings:

Group 1, Main Hall, Room 1: "Early Education of the Mentally Retarded"

Chairman: Eloisa Garcia de Lorenzo, Uruguay

Co-chairman: Toshihiko Miyashita, Director, Sagamihara, Kanagawa, Japan

Panelists: Ingrid Liljeroth, Psychologist, Vipeholms sjukhus, Sweden
Patricia Brown, Department of Speech Pathology, University of Utah, USA.

Group 2, Main Hall, Room 2: "Preparation of the Adolescent Mentally Retarded for Employment"

Chairman: Paul Odebaeck, Sweden

Co-chairman: Maurice Izzard, Principal, Ontario Crippled Children Center, Ontario, Canada

Panelists: Sven Gudman Nielsen, Principal, Copenhagen, Denmark
Patrick Flanigan, University of Wisconsin, USA

Group 3, First Floor: "Instructional Materials for the Mentally Retarded"

Chairman: Brage Normark, Sweden

Co-chairman: R Nichols, Headmaster, Bennet House School, Berkshire, England

Panelists: M van Walleghem, University of Louvain, Belgium
Don Erikson, Special Education, Instructional Material Center, Washington D.C., USA
Simon Duindam, Chief Psychologist, "De Hondsberg" Oisterwijk, Holland

17.00-18.00 Main Hall, Organizational Meeting - Committee on Special Education - IASSMD.

Chairman: Henning Sletved, Denmark

WEDNESDAY, AUGUST 19, 1970

09.00-09.45 Plenary Meetings, Main Hall

Chairman: Holger Rasmussen, Chief Inspector of Education, Danish National Services for the Mentally Retarded, Copenhagen, Denmark

Speaker: Herbert Gunzburg, Moneyhull Hospital, Birmingham, England

"The Education of the Trainable Mentally Retarded (SSN)"

09.45-10.10 Coffee break - Outer Lobby.

10.15-11.00 Film Emmanuel Chigier, Israel "Ordinary work"

11.00-11.45 Speaker: James Winschel, Syracuse University, Department of Special Education, New York, USA

"Teacher Training"

12.00-14.00 Lunch - Outer Lobby.

14.00-17.00 Group Meetings:

Group 4, Main Hall, Room 1: "The Education of the Trainable Mentally Retarded (SSN)"

Chairman: Herbert Gunzburg, England

Co-chairman: Mildred Stevens, Senior Lecturer, College of Education, Didsbury, Manchester, England

Panelists: Henning Sletved, Denmark
Nico J A van Oudenhoven, Psychological Institute, The University, Leiden, Holland
Julia Molloy, Orchard School for Special Education, Illinois, USA

Group 5, Main Hall, Room 2: "Social Training and Vocational Adjustment of the Adult Retarded"

Chairman: Harris C Teller, San Diego, California, USA

Co-chairman: Torkild Rohde, Headmaster, Lyngby, Denmark

Panelists: M Jane Ayer, University of Wisconsin, USA
Sister Sheila Haskett, S:t Coletta School, Jefferson, Wisconsin 53 549, USA
Gloria Soares Ikuta, Director, Pamplona, Brazil

Group 6, First Floor: "Teacher Training"

Chairman: James Winschel, USA

Co-chairman: Holger Rasmussen, Denmark

Panelists: Olivia da Silva Pereira, Psychologist, Guanabora, Brazil
Trygve Lie, Director, Special Education, Oslo, Norway

17.00-18.00 Main Hall, General Discussion: "Special Education and Rehabilitation of the Mentally Retarded"

Chairman: Joseph Fenton, Chief, Research and Training Division, Department of Health, Education and Welfare, Washington D.C., USA

19.30 Public Meetings, S:t Petri School, Fersens väg 1, Malmö, Sweden

Chairman: Niels Erik Bank-Mikkelsen, Denmark

Speaker: Morton Seidenfeld, Department of Health, Education and Welfare, Social and Rehabilitation Service, Washington D.C., USA

"Rehabilitation of the Mentally Retarded - Today and Tomorrow"

21.00-24.00 Social evening at La Couronne, Södra Förstadsgatan 36, Malmö.

THURSDAY, AUGUST 20, 1970

09.00-09.45 Plenary Meetings, Main Hall

Chairman: Henning Sletved, Denmark

Speaker: Hans Tangerud, Lecturer, Pedagogic Institute, The University, Oslo, Norway

"The Education of the Educable Mentally Retarded (ESN)"

09.45-10.10 Coffee break - Outer Lobby.

10.15-11.00 Speaker: Elias Katz, Assistant Director, Center for Training in Community Psychiatry and Mental Health Administration, California, USA

"Evaluating the Mentally Retarded for Special Education and Rehabilitation Programs"

11.00-11.30 Speaker: Lennart Wessman, Sweden

"Organization of Special Education in Sweden"

11.30-12.00 Speaker: Lars Kjellman, Sweden

"Integration of Special Education in the Malmö Area"

12.00-14.00 Lunch - Outer Lobby.

14.00-17.00 Group Meetings:

Group 7, Main Hall, Room 1: "The Education of the Educable Mentally Retarded (ESN)"

Chairman: Hans Tangerud, Norway

Co-chairman: Lena Saleh, St. Luke's Center of Mentally Retarded Children, Beirut, Lebanon

Panelists: Irene Stevens, 606 Morningstar Lane, Madison, Wisconsin 53 704, USA
Hedwig Stauffer, Lecturer in Special Education, Basel, Switzerland
Lars Bolander, Director of Special Education, Linköping, Sweden

Group 8, Main Hall, Room 2: "Evaluating the Mentally Retarded for Special Education and Rehabilitation Programs"

Chairman: Elias Katz, USA

Co-chairman: Karin Elisabeth Hauge, Special School Teacher, Larvik, Norway

Panelists: Margaret Shepherd, Assistant Professor, Teachers College, Columbia University, New York, USA
John McKenna, Director, Child Guidance Clinic, Dublin, Ireland
Thorbjörn Bredenberg, Lecturer in Special Education, Takahuhti, Finland
V V Subbarao, Ajmer, India

17.00-18.00 Main Hall, Closing Session:

Chairman: Harvey A Stevens, USA

Closing Remarks: Speakers: Lennart Wessman, Sweden, Alfred Boom, England, and Stanislaw Krynski, Brazil

FRIDAY, AUGUST 21, 1970

 Professional tour in the Malmö area.

Lennart Sandgren, Under Secretary, Department of Education, Sweden:

Introductory Speech at the First International Seminar on Special Education and Rehabilitation of the Mentally retarded, on August 17,1970, at Malmö.

Mr. Chairman, Ladies and Gentlemen:

It is a great pleasure for me to welcome you on behalf of the Swedish Government to this seminar as well as to our country and I hope that you will achieve the results that you have expected of your important discussions, and that you will also have an enjoyable stay in general.

In most countries the educational system has changed very much during the last decades. A vast quantitative expansion has often been coupled with reforms in objectives as well as in the forms of teaching and organization. The tendencies are of a similar kind in many parts of the world, even if development has progressed differently.

I shall here make a general outline of the development in our country. As I have understood that you have gathered here from all over the world I also thought that you might be interested in having some information on the Swedish educational system.

As you will know, Sweden is fairly large as regards area, but we are only some eight million people living here. Moreover, the greater part of the people live in the southernmost third of the country and only one tenth of the population in the northern half. At the same time as the geographical conditions cause very particular problems to economical and educational planners as regards distribution and location, the fact that we have a limited and relatively homogeneous population also offers advantages in making the planning of the educational sector perhaps easier and more efficient from other points of view.

As in many other countries, the educstional sector in Sweden is at present going through a stage of very rapid expansion. The nine-year compulsory school is today realized all over the country and about 85% go on voluntary schools after their ninth year - a percentage that will rise further in the seventies. Then all who want to continue their studies will be able to do so. The public expenses for education are four times as large as they were ten years ago, equivalent to about 8% of the gross national product. What, then, have been the driving forces behind this rapid expansion of the educational system?

From the historical point of view, one might, speaking very generally, discern three lines of development as regards the objectives governing these investments.

In the 19th centary and far into the 20th, it was the objective of enlightment, of disseminating culture as widely as possible, that prevailed, with the ultimate aim of creating a harmonious society based upon traditional cultural heritage.

After the second world war, it was the importance of education for pusposes of economic growth that came into focus. This regards not only the quantitative manpower output but also the qualitative improvements in the education that this manpower receives.

It is, however, the third objective that is rather the main motive power behind the Swedish educational expansion since the 1940's and that is the idea of human equality. We wish to see education as one of the means of social change and development and one of the tools for a true democratization of our society.

To realize these ideas the educational system has to be reformed radically. Let me explain this by briefly relating a socio-pedagogical research project. This project started 32 years ago with an investigation of the pupils in the third grade in the primary schools of Malmö. The investigation, which originally aimed at examining the relations between social environment and educational success, was later followed up. The results were very interesting and showed the importance of social background for future educational success.

I shall give two examples of the results: firstly, social background was more important that the child's ability when enrolling in secondary school. 95 per cent of the pupils participating in the investigation and coming from the upper class got further education after the compulsory primary school, against only 10 to 15 per cent of the pupils from so called lower classes. One fourth of those who had the best results at the tests didn't get any further education after primary school.

- Secondly: even average students with opportunities of continuing their education, were often successful in their studies. This experience is also confirmed by other studies for instance English and American; children who get interested and skilful guidance increase their test results, whereas children who lack such guidance show stagnating or even declining results - independent of the level from which they started.

This study is one of many showing that the traditional parallel school system with its organizationally and pedagogically very diversified structure is insufficient if all children and young people are to get the same opportunities. Instead, we have to try to find the solution within some sort of comprehensive school.

It was at the beginning of the present century that the first serious discussions started on the possibilities of making the compulsory elementary school a comprehensive, in the true sense basic school that would give a common ground for all young people, whether they wished to continue to some form of secondary education or take up other activities. The discussions eventually bore fruit in such way that, to begin with, the first three years were integrated, then the first four and eventually six, constituting a common base before the streaming of the secondary school set in. After an extensive trial period during the 1950's. In the beginning of the 1960 parliament made the definite decision concerning the introduction of a nine-year compulsory comprehensive school for all young people between seven and sixteen.

The process of integration is carried on continuously, with the purpose of eliminating as far as possible the risks of premature selection, dead ends, and one way roads with no possibilities of turning. There is at present a certain slight streaming in the eight and ninth grades of the compulsory school. From 1971 the pupils will remain together in the same class through all the nine years.

The vocationally and academically specialized lines of the upper secondary school, that is for young people between 16 and 18 - 19 years, are also in the process of being restructured for the purpose of greater administrative, organizational and methodological integration. The present upper secondary stage is organized into three main sectors, a/ the gymnasium, normally of three years, which is the usual basis though not necessarily at prerequisite for university studies, b/ the two year continuation school which is more clearly vocationally oriented, and c/ the vocational school, giving a variety of courses of normally two to three years' length. In 1971 these three schools will be replaced by one single school. An indispensable condition for this organizational integration is pedagogical individualization. The objective of equality must not only refer to the input - implying that everybody should have the same chances of entering a school; what is even more important is the output, the real educational profit enjoyed by those leaving school. The ultimate aim of an educational system must be to afford to every boy and girl, to every man and woman, the

best possible opportunity to discover and to achieve his or her full potentialities for self-fulfilment.

In our rapidly changing society, this applies particularly to those children and young people who have some form of handicap, it may be social, physical or mental. A wide panoply of compensatory measures must be set in to give to these particular pupils the same opportunities to benefit from their school years as those have who are in more advantageous starting position.

This seminar will concentrate on the conditions for the mentally handicapped. It is evident that educationally they must enjoy a privileged situation with access to all pedagogical, psychological and technical resources needed to counter as far as possible their handicap.

The interest in helping children with certain physical and mental handicaps arose fairly early among Swedish educationalists after the introduction of the general elementary school last century. As you will know, this interest arose simultaneously among psychiatrists in several European countries and in the USA. In a recently published thesis by an educationalist at Uppsala, Dr. Nordström, an outline is given of the development of special education for handicapped children, of which a few glimpses may be of interest to you.

To begin with, the 19th century educational psychiatrists took a very optimistic view of the possibilities of curing the majority of cases of mental handicap by educational methods, and institutions were established in a number of places, in Sweden as elsewhere. At the turn of the century, the stress was instead placed on the significance of heredity and unchangeability of the intelligence level, which caused this hopefulness to me moderated or even replaced by pessimism.

By the substitution of practical work for earlier theoretical instruction new life came to be instilled into handicap education. It was now considered that the most important aim should be to make the mentally handicapped as practically and socially capable as possible, irrespective of how much theoretical knowledge they were able to acquire.

Dr. Nordström stops his description with the year of 1921. In the following years and decades, the special education developed at an ever increasing rate, quantitatively as well as qualitatively. In the thirties compulsory schooling for those being able to profit by it was stipulated by law. In our days the special comprehensive school for pupils with mental and certain physical disabilities has been extended to ten years. This is also the case with the special education for the so-called trainoble groups, who, even if they are generally unable to learn reading and arithmetics, are given other forms of educational stimulation.

The ten years' basic comprehensive school is followed by similarly compulsory vocational training until the pupils are 21 or, in some cases, 23 years of age.

The volume of education is a consequence of a conschious policy that has been pursued at least during the last ten-year period, implying that if we increase the educational possibilities for the fully developed pupils with a certain number of years, then the increase for the disadvantaged pupils must be even larger. In the Budget Bill in 1965, for instance, it was clearly stated by the Minister of Education that at the allocation of public resources, the education of disadvantaged young people must be given a very high priority. With the continuous reforms in other sectors of the educational system, the gap between the disadvantaged and other groups in society tends to widen rather than close. It is evident, the minister said, that from the social as well as from the national economic point of view it must be of primary interest to societey to endeavour to eliminate this gap; this should be started already with the young at school.

Later in the 60's a law was passed that has now been in force for two years, implying for instance a large expansion of school activities for those children with the gravest handicaps who was earlier thought not to be able to profit by training.

Other fields within the special educational sector have also expanded in the last lo - 15 years. The vocational schools, for instance, have more than doubled their volume of teaching. Efforts have also been increased in the special comprehensive school, and as to pre-school education, attempts have been made at a further integration of handicapped children into normal nursery school environment.

A recently appointed Royal Commission on measures for improving the working conditions at school, with special reference to support to under-performing pupils, will, among other questions, consider factors influencing the recruitment of handicapped pupils to voluntary education, and participation frequencies.

These were some facts about the education of the handicapped in Sweden. For the moment there is no reason to go into more detail; later during this seminar those who are more familiar with this subject than I will present our ideas on education for mentally handicapped - especially in regard to the important work with adults, an aspect I have not mentioned at all. Let me stress that through continuous reform activities we attempt to offer to the mentally handicapped conditions of life as similar as possible to those of other people, the principle of integration being the guiding principle for the organization of the educational system for all citizens including the handicapped.

But there are many problems, as well as many alternative solutions. International contacts between scientists, clinicians, practitioners and administrators for discussion of common problems should be able to give valuable contributions to the development.

We regard it as an honour and as an inspiration for our future activities that the International Association for the scientific study of mental deficiency has arranged its first international seminar in our country.

I hope that you will profit greatly from the interchange of experience and ideas on this occation and that you yourselves will get inspired to further efforts in your continued important work in your home countries.

On wishing you once again welcome to Sweden, I declare the First International Seminar on Special Education and Rehabilitation of the Mentally Retarded opened.

Eloisa Garcia de Lorenzo, Consejero Nacional de Ensenanza Primaria y Normal, Montevideo, Uruguay:

The importance of early stimulation

"Reject nothing because it is new, reject it only because it is bad or it is ineffectual". I should like to add, reject nothing because it is old.

Any assumption that the learnings of infants are evanescent appears to be a very modern idea. In 1762, Jacobo Rousseau, wrote in "Emile" stressing the idea that education should begin while the child is still in the craddle. For many centuries the first years of the child's life were taken for granted. Infant and pre-school education was an unexplored field. In the last 50 years, much has been said but very little has been done. There is still much to be learned about creating growth-inducing conditions, applying through education, much of what the research shows to be the effect of early stimulation. Thus, we will be able to provide a truly prevention function, in indentification and anticipation of problems instead of attending only to testing tools or programs for amelioration. The educator is an applied psychologist in the best sense of the term. He is fundamentally interested in learning and behaviour. His function should help each person to become as effective and productive as potential makes it possible.

Most children will follow predictable patterns of development at generally predictable rates, but, for some, dramatic differences may occur and some may be expected. The problem is that there is no known methods to preselecting these children. Therefore in Education, as in Medicine, preventive measures should be taken. Progress in prevention will depend upon the correction of adverse environmental conditions. Prevention of such complex problem requires simultaneous attention to and correction of biological, psychological and socio-cultural factors.

Prevention of learning disabilities as well as other handicapping conditions in infancy and childhood, may be achieved through primary or secondary prevention. Primary prevention consists of measures to prevent learning disabilities from occurring, while secondary prevention is designed to mitigate the effects of learning disabilities once they have occurred.

Learning disorders occur in our western society when the individual mantains an earlier stages of behaviour in an environment demanding a higher set of perceptions, concepts and related responses. The child with neurological impairment or questionable genetic endowment, may not have the experiential and perceptual foundation upon which to build the superstructure of new concepts, which occur later in life. He experiences confusion, frustration, and fails to learn, while other children of the same age are easily expanding their

repertoire of information and skills.

With a change in our conception of man's intellectual development, emerges a hope of combatting handicapping conditions by altering, for part of the infant's waking hours, the conditions under which such children develop. The question is how? Since the most crucial and rapid learning is in the neo-natal and infancy period there is where the education intervention must begin.

The teacher as a member of the multidisciplinary team can help stablish efective learning patterns to provide a greater cultural syncrony from stage to stage.

Brackbill and Koltsova (1967, pag. 207) wrote in their chapter on infant conditioning and learning "The infant's genetic makeup will ultimately set the limits on the extent to which his behaviour is modifiable but at this time of life, his susceptibility to the effects of environment, of experience, of learning is enormous." The critical question concerns those dimensions of environment that makes a difference in controlling development. The specification of the controlling variables and the mechanism of the interaction with organismic characteristics may eventually lead to very powerful tools for controlling the developmental process.

Such control has already been demonstrated in the partial success of adjusting the developmental outcome among children identified as phenylketonuric. In this case the observation of a metabolic condition results in a dietary precription that, for some individuals, alters an otherwise dark developmental prognosis. In similar ways the proposition of this paper is that when we understand the interactional mechanism of the organism and the environment, an alteration of the environment through adequate ingredients of stimulations, should result in control of developmental outcomes. The literature offers a large numbers of researchs, as a basis for a new setting of social experimentations, oriented mostly toward enriched pre school programs. We found that these program start mostly at or beyond the 3 years of age, and lack a sequential, adequatly reinforced approach, as well as theoretical information and systematic application of much of what research can offer.

The results of studies done on the area of early stimulus deprivation ranges from destruction of the unstimulated organ to partially and completely reversible effects (Riesen and his colleagues, 1961). We do not think it is proper when discussing infants to think in terms of general sensorial stimulation, we must indentify the problem as one of lack of appropriate physical stimulation and the interaction of the organism with the stimulas. When this function is absent the result is the same. The organism will not show expected response acquisition.

The relative plasticity of the organism for behavioral change is a very striking point. It can never be proved that complete plasticity ever cease to exist. However we must stress that the earlier one begins stimulus conditions for behavior the greater the likelihood of success in insuring normal development. In human development the range and rate of development are most variable. Most organisms develop "normally". The normal clasification is extremely wide and are very wide individual differences. These differences are not judged to be serious. As Dr. Horowitz (1969) points out, "some children learn to read at 4 and others at 6. The 2 year difference by itself is only grossly related to later intellectual functioning. But a 2 year difference in a behavior ocurring earlier in the sequence of development portends a more serious implication. The long range differnces between the child who learns to sit at 6 monthsof age and the child who learn to sit at 30 months of age is quite a different matter." This lag in this kind of behavior, ocurring so early in the developmental process, provides a good prognosis of such organism ending up in a retarded clasification". Retardation is a relative clasification and is always made on the basis of defined normality (Bijou, 1963) has made a cogent case for using the term developmental or behavioral retardation rather than mental retardation. Coming back to Dr. Horowitz we note "retardation should be the expected result for an organism where the functional stimulus conditions are not present at a level sufficient to provide for normal response acquisition. The apparent tautology of this statement belies the implication for control that would be available if the nature of the functional interaction between stimulation and organismic characteristic were understood. Then just as one can prescribe a diet, so one can prescribe a diet of environmental stimulation. The prevention of developmental retardation thus becomes a possibility. Prevention is possible when necessary neurological tissues are present. Since the largest identifiable population of mentally retarded do not show gross neurological tissues absence, the population to which this program can be applied is a very large one. The regulation of behavioral development depends upon the knowledge of what is functional environmental stimulation for an organism. Much we have to expect in the ongoing research on learning and individual differences in learning.

The infant's initial contact with the physical environment are undoubtly his unconditioned and nondescriminated reactions to stimuli, mostly at the stronger intensity ranges, the knowledge about the sensitivities of the newborn rest upon demostrable correlations between stimuli and dependable response measures. Research finding suggest that during the first post natal month the infants respond to the stronger intensity of lights, sounds, odeurs,

pressures, electric stimulation, body movements and chemical substances on the tongue and other surfaces of the body. He also responds to variations in upper and lower temperature.

Movement of an attractive object across the visual field, produce eye-tracking and correlated headturning behavior. Three dimensional objects and patterned designs produce longer visual fixations than two-dimensional drawings and less patterned designs (Fantz, 1958 and 1961) there is another class of responses, the specific behaviors to specific stimulation, mostly on the surface of the body. Exploratory behavior in infants is clearly apparent by the time they are 5 months old.

Repeated presentation of stimulus to a new born tend to reduce the power of that stimulus; that is to say, response strength decreases as stimulations follow one another in rapid succession.

Perhaps adaptation takes place during this period not only because of the immaturity of the biological structure and functioning of the infant but also because of:
1) the abscense of essential consequent stimuli to maintaining behavior and
2) the presence of strong and persistent competition from biological processes, eg., digestion, sleep and fatigue cycles.

Our knowledge of stimulus discriminately in young infants is, at this point, very poor. There is a strong possibility of a variable from organism to organism. Auditory, visual, kinesthetic and tactile sources of stimulation are likely candidates as relevant variables: the question is how one determines the "amount of each, the number that occurs at one time, and the degree of interaction among them are as (Frances Horowitz, 1969) express "empirical questions for which there are presently no answers".

Recent review of the literature on infant learning (Brackbill & Koltsova, 1967; Horowith, 1968; Lipsitt, 1963) support the generalization that the human infant is conditionable. Until now the under-lying mechanism controlling these developmental changes is not apparent (Breman et al, 1966). The behaviour observed experimentally calls the attention to the

a) quality of the stimuli,
b) developmental changes.

The variability observed on the responses, decreased with age. This call for a cautious step, when we designed a model for stimulation, specially in the first months of life. Methodologically there is of great importance to abstract the dimension of the stimulus and varying them in some systematic

way, extracting them, after a careful observation of the natural setting of infants. Probably much early learning is facilitated by the fact that the environments adapts to the characteristic of the individual infant but at the same time what can facilitate learning in one individual, may limit the level of responsiviness, if speed and the pacing of stimulation are not matched to the individual characteristics and environmental characteristics. If some of what has been said about the organism "seeking" optimal stimulation is valid (Horowith, 1969) then to the extent that the organism can pace his own stimulation, certain aspects of his development" should be adequate, thus the role of the pacing of environmentally provided stimulation becomes important for developmental outcome.

If we assume with Brackbill and Koltosova (1957) that the potential effects of the environment are enormous, then the concept of capacity for development can be descriptively useful for the delineation of standard stimulus conditions.

It seems incongruent to stress that interaction of hereditary factors with environmental factors is always ocurring.

Actually we are witness to a large number of programs that hastely apply stimuli of every possible kind without,

a) adequate study of what infants do (behaviorally and psysiologically) when they are not stimulated.

b) More detailed studies should proceed from knowledge of the organism and environmental influences that affect the activities of the unstimulated baby.

c) When stimuli is applied it is desirable that priority should be given to those stimuli that are present in the infants natural habitat.

I have tried to present some assumptions underlying the training program we have started since 1963 in the pre-school section of a school for mentally retarded children, in Montevideo, Uruguay. The study was reported at the 1st International Congress on the Scientific Study at Montpellier (Lorenzo, 1967).

Since 1967 we have been engaged in a training program for early sequential stimulation of high risk infants. The selection criteria for placing the newborn in group designated as high risk and low risk babies was given in the report at Montpellier.

Today we want to describe the training program, the logistic problems of tutoring in the home and the plan for developing sequential structured, pacing, and ordely variety of multiple stimuli. Through visual haptic, kinesthetic auditorial sense modalities.

Training program

Personnel:

Multidisciplinary team: Neuropediatrician, Neurologist, Psychologist, Physiotherapist, Home Visiting Teachers, Physical Educator, Pre-school Teachers, Social Worker.

Procedures:

During the last month of pregnancy a member of our team becomes acquinted with the diagnosed "high risk mother". This member approaches the mothers as an instructor on child care.

When the baby is born the Team examines the medical record the health report, neurological and pediatric condition.

The home visiting teacher already has data concerning the home and family and their ability to carry out the suggestions that the team makes. Along with this she also is aware of the resources the home can provide.

In a conference with the parents they are asked if they are willing to follow a programm, in an attempt to aid the development of the child.

Up until now our pre natal programme has been a success in as much as all of our 12 families have been willing to continue with the proposed programme for their children.

Besides having accepted the continuation of the programme they have done so without signs of extreme anxiety. This cooperation can be attributed to our careful planning, as well as quality of training and personality of our staff.

During the first 6 months, the tutoring is done at home: the schedule is fitted to the child; after this he is taken to the pre-school, where the physiotherapist and teachers begin the pre designed program.

It is only posible at this time to discuss a few of the mayor points of our approaches.

First three months

During the first two weeks, daily observation and rating of sleeping and waking behavior, before and after meals, by the presentation of a set of somesthetic, auditory and visual stimuli. From our preliminary testing a profile of the child is made. This profile will be used to help design the proper programme. This includes the sequence, pacing and order of presentation which should be used.

From the very first month of work we stress the sensory and motor development through a simultaneous variety of stimuli.

Assessment Procedure

Instruments used: Assessment Scale on Early Development.

Instrument for Assessing Infant Psychological Development, Uzgiris and Hunt (1966), measures cognitive development from birth to two yeras. This instrument further divides the six sub-stages posited by Piaget as comprising the sensory-motor period, and requires the child to engage in tasks described by Piaget (1963) to determine his level of cognitive development. This assessment is used to ascertain the conceptual development of the experimental subjects.

Lorenzo and Lermitte, Parent Behavior Rating Scale (1963) is used by two trained interviewers at the pretest who visited each home to rate parent and siblings attutudes toward the child.

Assessment of Home Stimulation, Caldwell (1966) adapted for this study by Lorenzo, Rico and Lermitte is used to measure the intellectual stimulation found in the home at the pretest. The home is evaluated on: number of people, relationship, space, fornishings, noise, cleanliness and childre's equipment. Assessment is also made of child care (feeding habits), household planning, use of books, toys, and TV, social life of the child and the language use in the home and possible use of the available material for stimulation at home.

Outline of Language Development (1967), derived from McCarthy, Hedrick and Prathers, Myklebust and others, is administered to the experimental subjects to determine the language level at which educational procedures should be initiated.

Outline of Motor Development, derived from Gesell, Jershild, Ilg, Ayres, Bobath and others, was used to determine the experimental subjects' level of motor development for initiating training.

From 6 months on we have designed activities which fall into the following major developmental categories

1) Language development
2) Conceptual development
3) Sensory motor development

Methodology and material

- Toys for non-structured activities
- Toys for gross motor development and active play
- Toys for fine motor activity

Activities are structured to give the children, fun, success and accomplishment. Attention span is gradually increased, the child is trained to sit and work for a full hour. This hour is composed of 20 minutes of individual activity and the rest in the group.

Language development received special emphasis - including gestures, imitation, and verbalization of their needs. We initiate the training at the pre lenguistic level - Luria and Vigotsky have provided an excellent ground work for understanding the direct relationship between general motor involvement in the utterance of words.

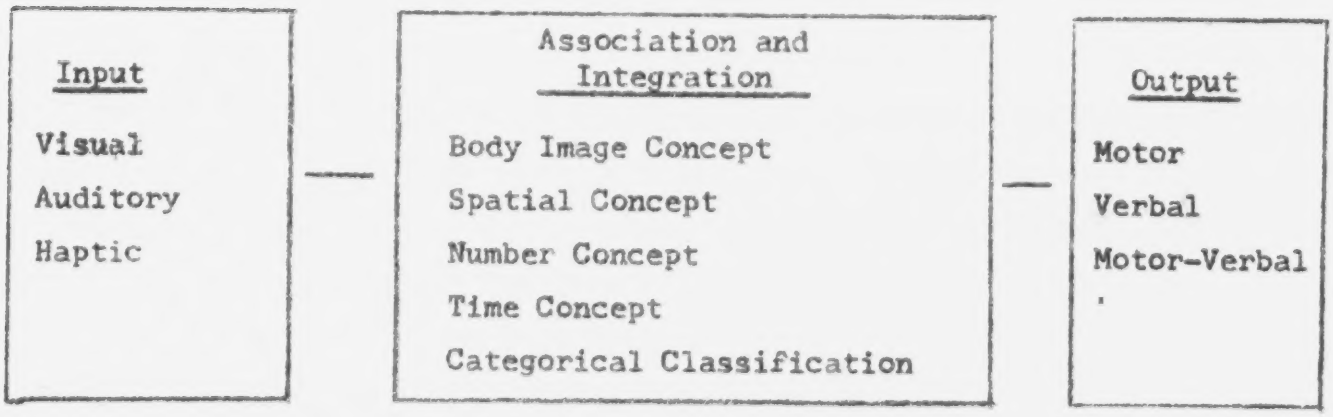
Controlling one's actions through one's own words is a necessary step toward the mastery of dialectical reasoning (Luria, 1961; Vygotsky, 1962). Bereiter and Engelmann (1966) point out that information may be accumulated and used by controlling verbal behavior through and "internal dialogue" which differs from the social uses of language and is at the very core of verbal intelligence.

In our present study the children are trained toward the development of certain concepts prerequisite for academic learning which are usually acquired at an early age. The concepts of body image, spatial relationships, number, time, and categorical classification are stressed.

As the child develops his concept of space, he learns to differentiate not only spaces but objects in it by their form. Ausubel (1958) writes that form discrimination is one of the earliest conceptual acquisitions of the child. Size discrimination requires the relating of an object to other measures or objects and develops later.

SCHEME FOR SENSORY-MOTOR TRAINING

(after Genevieve Painter)



After 3 years of this work, we report

1) The study shows a very good adjustment of parents and siblings integrating the child in the family activities.
2) Only 3 out of 12 high risk babies are cerebral palsied and need special physical treatment.

In general, test findings suggested that training should emphasize language development, symbolic representation, and concept formation. Each child is given a program designed to aid in the amelioration of his development deficits at the time of his entry into the study and amended to take account of his subsequent progress.

A more realistic evaluation of the success of the program can be expected as data is gathered about the child progress in his elementary education.

A S S E S S M E N T S C A L E

Newborn Observation **Tentative Scale**

Infant's Name _____ Age _____ Born _____ Hour _____
Date

Mother & Father's Names _____ Mother's Age _____ Father's Age _____

Father's occupation and S.E.C. _____

Mother's occupation and S.E.C. _____

Siblings _____ Sex _____ Ages _____

Race _____ Place of Delivery: Home _____ Hospital _____

Conditions of Examination:

Date examined _____ Birth Weight _____

Time examined _____ Total time observed _____

Time last fed _____ Type of feeding _____

Lighting _____ Noise _____

==========

Type of delivery _____ apgar _____

Gestation _____ Gravida _____ Para _____

Length of labor _____ Birth order _____

Medication or Narcotics during pregnancy _____

Medication given prior to delivery (Anesthetics, Analgesics) _____

_____

Course of pregnancy _____

Examined at O. Ph. _____

Baby's condition and progress _____

==========

Name of examiner _____

Occupation _____

ELICITED MOVEMENTS

Evaluation I

	Omited X	AB. 0	L 1	M 2	H 3	Notes
Placing	X	0	1	2	3	
Automatic walk	X	0	1	2	3	
Straightening of legs	X	0	1	2	3	
Babinski	X	0	1	2	3	
Plantar Grasp	X	0	1	2	3	
Hand Grasp	X	0	1	2	3	
Ankle	X	0	1	2	3	
Tonic Neck Reflex	X	0	1	2	3	
Crawling	X	0	1	2	3	
Moro	X	0	1	2	3	
Incurvation	X	0	1	2	3	
Pinprick (initial spread)	X	0	1	2	3	
Doll's eye	X	0	1	2	3	
Tonic deviation of head and eyes	X	0	1	2	3	
Nystagmus during rotation	X	0	1	2	3	
Suck (intensity)	X	0	1	2	3	
Rooting (intensity)	X	0	1	2	3	
Kyphosis	X	0	1	2	3	
Lordosis	X	0	1	2	3	
Scarf (amount of resistance)	X	0	1	2	3	

TENTATIVE ASSESSMENT SCALE

		Evaluation II								
	Omited X	1	2	3	4	5	6	7	8	9
Sleep States	X	1	2	3						
Awake States	X	1	2	3						
Crying	X	1	2	3	4	5	6			
1. General Tonus	X	1	2	3	4	5	6	7	8	9
2. Lability of skin color	X	1	2	3	4	5	6	7	8	9
3. Peak of Excitement	X	1	2	3	4	5	6	7	8	9
4. Lability of States	X	1	2	3	4	5	6	7	8	9
5. Alertness	X	1	2	3	4	5	6	7	8	9
6. Following with head and eyes (inanimate object)	X	1	2	3	4	5	6	7	8	9
7. Reaction to sound (usually bell and rattle)	X	1	2	3	4	5	6	7	8	9
8. Defensive movements (Cloth on face)	X	1	2	3	4	5	6	7	8	9
9. Irritability	X	1	2	3	4	5	6	7	8	9
10. Self-Quieting Activity	X	1	2	3	4	5	6	7	8	9
11. Consolable with social intervention	X	1	2	3	4	5	6	7	8	9
12. Pull to sit (repeat)	X	1	2	3	4	5	6	7	8	9
13. Head Movement in prone	X	1	2	3	4	5	6	7	8	9
14. Activity	X	1	2	3	4	5	6	7	8	9
15. Social interest in the examiner (attends face)	X	1	2	3	4	5	6	7	8	9
16. Social interest in the examiner (attends face accompanied by voice)	X	1	2	3	4	5	6	7	8	9
17. Social interest in the examiner (attends voice)	X	1	2	3	4	5	6	7	8	9
18. Number of smiles seen	(describe)									
19. Passive movement of legs	X	1	2	3	4	5				
20. Passive movement of arms	X	1	2	3	4	5				
21. Rapidity of build-up	X	1	2	3	4	5				
22. Habituation: light on eyes (repeat)	X	1	2	3	4	5				
23. Hand-mouth facility	X	1	2	3	4	5				
24. Amount of mouthing	X	1	2	3	4	5				
25. Tremolousness	X	1	2	3	4	5				
26. Amount of startle	X	1	2	3	4	5				
27. Vigor	X	1	2	3	4	5				
28. Cuddliness	X	1	2	3	4	5				

PARENT BEHAVIOR RATING SCALE

Family: _____ Children: _____

Classroom: _____ First day of class: _____

Characteristics	Score
Parental Acceptance of Childs Condition	
Parental judgement in control of childs activities	
The child has extra-familiar activities	
Parental Encouragement of child, engaged on independent activities with realistic expectations	
That interest the child proper activities, are provide by this parents	
Love and affection in parental relationship	
Love and affection in parent child relationship	
Confidence and trust in the professions consultated	
Brothers and sisters understanding and acceptance of the child limitations	
Initiative and creativeness of the family to carry out the consultant's suggestions	

E V A L U A T I O N

8 - 10 points: Good family
5 - 7 points: Normal
1 - 5 points: Poor

The most important characteristics in the evaluation of the families are number 1, 6 and 7.

O B S E R V A T I O N S

1) What was the family's score last year?

2) In what areas has substantial progress been made?

3) And with relation to the child?

4) Which aspects have remained stationary?

5) The reasons the family class reorganizasion motivated change

6) Does the child live with his real parents or is he adopted?

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Paul Odebaeck, First secretary of Division, National Labour Market Board, Stockholm, Sweden:

Mr. Chairman, Ladies and Gentlemen,

PREPARATION OF THE ADOLESCENT MENTALLY RETARDED FOR EMPLOYMENT is, of course, quite a complicated task. We would all be quite happy, I think, to get an overall manual about goal, teaching methods, evaluation methods, etc. on this topic.

There is, however, a very small chance, if any, that we will ever get such a manual. During recent years a great deal of research has been carried out to enlarge the knowledge about mental retardation. According to such reports, that reach administrative personnel, the research seems to deal with separate functions and details and does not give that wanted overall lead for maintaining a full program for the preparation of the mentally retarded for adulthood. The administrators have, however, to plan and make decisions about programs and curriculums for the mentally retarded as best they can, either there are scientific data to rely on or not.

You might sometimes have the feeling, that the planning and the actual job with the retardate is based on up to 50 % "Know How" - the rest will be "Guess How". There is, of course, a great deal of experience in the background, not to say in the backbone, but very often you would like to have exact knowledge about the probable effect of this or that action. Too often you have to go on with the best of "Guess How" you are able to mobilize.

This situation might have been the reason for the program committee to invite an administrator to give this paper. That means, on the other hand, that the paper cannot give much of scientific news but much the more about scientific needs - the need of still more of research on the functions of the mentally retarded, on pedagogic methods, on social behaviour and training - on everything about him or her.

The task of preparing mentally retarded for employment can of course be tackled in much separate ways. The one I know best is, no doubt, the system of my own country, Sweden. By giving more or less a description of that system, I hope to arise contradiction, questions and discussion enough for everybody to get a chance to learn a bit more about his or her own job at home.

The description of the Swedish system of preparing the mentally retarded for employment does not aim at giving the audience an ideal prototype to be copied in other countries. Its aim is to point at some really controversial problems, controversial among ourselves as well as among others.

Two years ago a new law was inaugurated in this country about the care and the education of mentally retarded. It states compulsory schooling for all mentally retarded from the age of 7 to the age of 21 or, by dicision by the regional board of care and education of M.R., unto 23 years of age. The kindergarten before 7 is voluntary - but facilities are to be provided by the regional authority.

This arrangement means, that most of the preparation for employment is under the responsibility of the school authorities. You have to notice in this respect, that the compulsory school-time is the same for all retardates, also those with an I.Q. down to zero or thereabout. The top I.Q. will be roundabout 70 - although the I.Q. is looked upon only as one indication among other ones when deciding on placement into the category of "Mentally Retarded". One explanation, that we sometimes use unto "outsiders", says, that a pupil is mentally retarded, if he or she functions pedagogically in that ways, that persons with an I.Q. below 70 do as a rule.

If the term Mentally Retarded is thus defined for this paper, also the term "adolescence" ought to be defined for the same period. One Oxford University Press dictionary says, that it is the age between 13 and 21, another dictionary from the same publisher gives the age 14 - 20. An American handbook (by Mussen et al.) states, that in modern, industrial society the adolescence period starts at approximately 11 and goes on to about 18 years of age.

Considering the situation of the retarded, I guess, that I might for now deal with the period from 14 to 23 years of age.

The new law has been in effect during two years. That means, that it has not yet come into full function. All the facilities, localities, teachers with special training for new tasks, books and "teaching systems" are not there today. But to a great extent the county councils have succeeded to start the new schooling for the profoundly retarded, although much of the work is to be done on a very provisional basis. Among other things there is, naturally enough, much more than usual of trial and error in the teaching - and what errors, sometimes!

To be able to cope with the very different pupils, who by now are to be instructed, we have had to divide the school into two definitely separate streams, called grundsärskola and träningsskola. That might be interpreted into English as "special primary school" and "training school". Dividing line between the two streamsis the ability to learn to read and write and calculate in an ordinary way with some understanding of the letters and the figures and the manipulation with them. If you are able to read and write, you will belong to the "special primary school" - if not you are placed in the "training school", or, if not capable of taking part of group education, into the group for individual training.

The special primary and the training school take care of the pupils from 7 to 17 years of age. After that follows the compulsory vocational school, that also is divided into two separate streams. In Swedish the streams are called "yrkesutbildning" and "yrkesträning", best interpreted, I think, as "Vocational Education" and "Vocational Training". If needed, the pupils still have their right of individual training during this period as well as during the first ten years of compulsory schooling.

In some meaning all the schooling is a preparation for adulthood, including capacity of gaining and retaining employment. On the other side the vocational school is specially designed to give that preparation. Vocational training or occupational training or work therapy training are old parts of the special schooling, although the name of vocational school for mentally retarded was inaugurated only some fifteen years ago. The function was there long before - just like some amount of the training school program was exercised for decades before it was made compulsory to county and pupil.

Our oldest institution for M.R., Johannesberg (i.e. "John's Hill") in Mariestad, is more than one hundred years old. As early as in the 1870's it was replaced from the town of Skövde to a small manor outside Mariestad with the purpose to give the pupils a better occupational training. Sweden was then an agricultural country. About 70 % av the population had their earnings from agricultural and affiliated work. Thus farming gave the best oppurtunities to get an occupation. Accordingly the male retardates were trained to be "farm hands", and the female ones to do domestic work, especially of the farm household type. This training made it possible to place a great many retardates in more or less sheltered work on small farms or on farms of intermediate size. At the same time they got a home of more or less normal standard for those days. This combined sheltered work and family care for adult retardates

is still practised to some amount, but the possibility to find suitable farms and farm families for such a task decreases more and more in parallel to the diminishing of the small farms. A modern farm has to be five to ten times as big as the small ones in earlier days, if there should be a chance to make it profitable. Instead of unskilled farm hands there is need of fully skilled farm labourers, who are quite able to handle all the complicated machines of a modern farm and to perform the work without much of supervision at all.

As late as twenty years ago almost everyone of the 31 counties of Sweden, also those consisting of a city only, had their own farm for training of mentally retarded for farm hand work. Today they are all gone, and farm training for retardates is given at two agricultural schools, one in the North and one in the South of Sweden. Each one has only one class for about ten M.R. pupils, who are trained to be fully skilled farm labourers. This basic course in farm work takes one year for "normally gifted pupils" - the retarded get at least two years and very often three or four years of training to obtain this basic skill and knowledge about the job. Among other things they have to pass the test for a tractor driver's licence, which is a "must" for functioning as a labourer on a modern farm. To be accepted as a pupil of this special course for mentally retarded, you thus must be bright enough to learn all the rules about motor traffic on roads and streets. It might imply, that only every fourth pupil of the special school for M.R. can be eligible for farm training.

We have today two agricultural classes at vocational schools for mentally retarded. In the future we seem to have two classes still, but placed not at vocational schools for mentally retarded but at an ordinary agricultural school as special classes for mentally retarded.

This question on the farm labour training has been brought into attention because its development seems to be typical for the development in general of the need and type and construction of vocational training and education.

The goal of the vocational education and training might be different for separate pupils, according to their abilities, aptitudes, and interest. A "ranking list" of these goals may include the following types of occupations:

I) competitive work in open industry,
II) sheltered work in a workshop for handicapped of different types,
III) sheltered work in a special workshop for M.R. labourers,
IV) work therapy with industrial production but without the condition, that the labourer should earn enough for his own maintenance,
V) occupational therapy with the aim to keep the person occupied "with something to do",
VI) home work with the standards of I) to V) above.

The methods for obtaining these separate results can of course be quite different. A foreman or a therapist can give the instruction bit by bit during the hours of working or occupation. The trainee can be placed at work at about the same conditions as an apprentice's. The trainee might be left with the job to learn it by his own "trial and error". There, too, might be all sorts of systems with these methods mixed together.

In Sweden a formal teaching in school has been chosen for general method with, as said before, compulsory vocational education or training. Among the reasons for this decision are the increasing difficulties to obtain employment on the open market for the M.R. The "normally gifted" Swedes have a compulsory schooling of nine years. After that more than 80 % continue their schooling voluntarily for at least two years, either in grammar school or learning some trade or other type of occupation. Still a couple of % go to industrial or banking or insurance schools combined with employment by the respective company or institution.

On the open labour market the M.R. has to compete with such well prepared competitors. The employers have got accustomed to have a choice between basicly trained applicants for good jobs. If you have not acquired the basic training, you should at least be capable of a quick "within industry training" - just a quick training in a short time. And most M.R. are not.

In that situation the retarded need some compensation for their mentally handicap. With a small slogan it might be formulated as "The lack of knowing and understanding has to be compensated with more of trained skill and intensively taught knowledge".

This idea is based on experience. A survey on the actual placements in job of young adult M.R., performed about 1950, showed that about 70 % of the men and about 59 % of the women, who had fullfilled the

special primary school, earned money enough to support themselves or to do so partly. Another survey, in the beginning of the 1960's, showed, that this percentages had decreased with 6 and 13 respectively to about 64 % for the men and to about 46 % for the women.

Those figures were alarming, especially those for the women. They reflect the deminishing market for unskilled domestic work, among other things. The young men seem to have accepted and been accepted for factory job to a greater extent than had the women.

In the National Board of Education the conclusion was made, that you had to speed up the reorganisation of the vocational school for M.R. and other arrangements for the preparation of the M.R. for employment. So did the law rewriting committee, and the results came out in the law of 1967 for education and care for M.R.

Before that there were a great deal of discussions with local and regional authorities on developing the training on a voluntary basis. Councillors and principals and headmasters in some counties disagreed, however, as the pupils according to their experience could not learn more of school subjects than what was taught in the old special primary school during seven years. Already an eighth year of schooling seemed to be too much. It would be a waste of time, only, as well for the pupils as for the teachers and other personnel. Hitherto the pupils had learnt enough for proper placement in competitive employment, in sheltered work, or in care homes respectively.

The argumentation about more schooling giving better chances on the market was really questioned from that side. When applying for permittance to start vocational schools, which they were compelled to by the law already in the 1950's, but based on a six or seven years' primary school, the proposition was not accepted by the National Board with the motivation, that there ought to be at least 8 years of general education in the special primary school before entrance in vocational education or training. Thus a more effective system was built up step by step, but not fast enough as to the meaning of the National Board. The new law of 1967 was really a good help for the authorities in their work to get the best possible system in effect - best possible in accordance with existing resources.

If some county authorities did not accept the new ideas as profitable for the M.R., other ones tried them on full scale. In 1958 two

modern special vocational schools for M.R. were started in Stockholm and Katrineholm. They both aimed at education to full skill in some trades: metal work and joinery or cabinet making in Katrineholm, and in Stockholm the same departments and also bookbinding, laundry, domestic work and a department for general work training.

Nävertorpskolan in Katrineholm tried to follow up their pupils after their leaving school, also about placements in work and earnings etc. In a report of 1965 you could find out, that the medium income for those pupils who had left the school in 1960 after two years of basic training, amounted to 11 625 Swed. kronor, That is about 20 % less income than the average of all employees of those trades, civil engineers and so on included. Still the M.R. employees in this survey had not served long enough to get the real top earnings of their trades.

Such cases of success can of course be found in connection with other schools - if you single out a few individuals. A couple of teachers at other schools have, in fact, reported single cases of M.R., who some years after leaving school had better earnings than their teachers at school! - just like one of the pupils in the Nävertorp report.

Still you cannot build up a preparation system on the premises of what is possible for the most successful of the clients. This first started modern vocational schools for the M.R. thus had to be enlarged in order to give training facilities also for boys and girls, who are not able to learn a skilled or semi-skilled work. There also was to be arranged facilities for the girls to be pupils in the departments for trades and occupations, that traditionally are "for men only", and in the same way for boys in the departments for traditionally women's work.

The special vocational schools for M.R., that have been planned and built after about 1964, have from the very beginning got such outlines. Today, however, no special vocational schools are planned but in connection with care homes for profoundly retarded, who are unable to go to and from a school outside the institution or need continuous help for daily functions.

For all pupils with social ripeness enough to go to and from a school and able to take part of class instruction the vocational education and training is planned to be given in special classes in connection with

the ordinary "gymnasieskolan", i.e. upper secondary school, for normally gifted youth.

This action of placing the vocational classes for M.R. in the ordinary school is a part of the general efforts to normalize the life situation of the M.R. and to integrate the M.R. into the ordinary society. As yet it will mostly be whole classes, that are integrated. In future it might be much more usual than today, that individual retardates are integrated in the so-called normal classes. With still more developed pedagogic methods of individualized education inside the class, this possibility will increase. Already today some M.R. pupils are individually integrated in the so-called normal classes, especially where there are resources for some extra individual lessons on theoretical subjects. There are, really, a great deal of difficulties connected with such arrangements. Many vocational departments of the general "gymnasieskolan" have, in fact, teachers with special training for the education of handicapped pupils. But even so you cannot rely on this being the case in just that trade department, to which the pupil is recommended. And still, there are a great many "gymnasieskolor" without any such specially trained teacher at all.

Furthermore you have to remember, that the special vocational training for unskilled work is quite special for the M.R. and a small amount of other severely handicapped. For that department you have to rely on special classes also for the future, you just now can have clear ideas about.

The curriculums for the special vocational education are the same for classes in special vocational school as for special classes, that are integrated into an ordinary "gymnasieskola". In practical subjects all the elements of the "normal" gymnasieskolan´s curriculum are included. In theoretical subjects, the curriculums have to be altered according to M.R. pupil´s less amount of basic skill and knowledge and to their ability to understand and learn. As the M.R. very, very seldom will be foremen, they need not know all the theoretical facts about the techniques of the trade, that is needed by those labourers, who might be put in charge of a working unit.

Parenthetically might be noted, that it happens very, very seldom, but, Ladies and Gentlemen, it happens, that a M.R. is placed as foreman for a working unit!

As well pedagogic experience as scientific research have shown, that the M.R. need much more of time and of repetition to learn facts and techniques. The time needed in addition for this purpose is given two ways. The one is, as was said about the farming education, that the M.R. might have more years of schooling than the "normally gifted" to reach the same skill and knowledge. The other way is, that there is a less number of pupils in a special class than in the ordinary one. That way the teacher gets more time for individual instructing of the single pupil, than what is available in the ordinary class.

The time gained those ways is, however, partly used for special subjects and for at least one extra hour of gymnastics or other physical training, well needed by many of the M.R. Special subjects of the special class curriculum are "ADL-training" and home economics. Home economics is a subject of the primary or lower secondary school curriculum, in schools for handicapped as well as in schools for ordinary pupils. The prolonged schooling time for M.R. leads to some disadvantage according to that subject. When the pupils are to leave school, they have forgotten too much of what they learnt about cleaning, washing, cooking, buying food and other things, they were supposed to learn. The last year in the vocational school they ought to have and in many schools also get a "brush up" repetition as to be more able to live on their own, if that would be needed for proper placement in employment.

ADL-training is a loan-word from the English. In British texts this ADL stands for "Activities of Daily Living". In Swedish it stands for "Anpassning för daglig livsföring", meaning Adjustment to Daily Living. The reason is partly the difficulty to find a Swedish word, that begins with an "A" and has the meaning of Activity, partly the wish to direct the personnel's doings into a systematic training with continuity.

The ADL-training is especially emphasized in the 8th - 10th grades of both the streams of the special school for M.R. It starts already in the Kindergarten and it continues in the vocational training classes for seventeen years old and older pupils, but it has its "highlight", if I may say so, in the age of 14 - 17.

The meaning with this intensive ADL-training is, among other things, to help the young person to be able to live on his or her own, to acquire the capability of going to and fro the job by ordinary buses

and tram-cars, of understanding the orders of the boss, of taking the day's meals at the canteen without having to bother somebody else to help with the task, of coping with the fellow-employees during work-time and leisure-time on as normal as possible a level.

We look on these activities, orientation in working life and training all sorts of every-day's-doings, as much essential parts of the preparation for employment. It has happened in some cases, that fully trained metal workers have failed to make their own living, as long as you can see due to the tragic reason, that they were not trained enough to cope with working mates, with bosses, with the travelling to and from the workshop, with working morals such as keeping time, holding on in the job for the hours stipulated etc. As they had not got the training of finding suitable recreation activities during their spare time they got too much of loneliness. They also were shy of going to a cafeteria on their own to have a meal - and got into undernourishment to some extent. There followed permanent tiredness, inefficiency in the job, unemployment, and in two cases return to the central institution, where they had had their special primary schooling, and where they now got a type of sheltered work together with their old mates, accepting and accepted by personnel and clients.

This last little report on the failing fully skilled metal workers with its deductive explanation of what caused what is typical for the not-knowing-for-sure-but-having-to-decide situation of an education program organizing official. Some pupils will always fail, but why did just these ones with good vocational education and in school demonstrated capacity to perform a good work do so? You can observe some of the lacks of training, at least some of the difficulties in the employment situation. You can discuss the problem with headmaster, teacher, social worker etc. and find a few more bits and ends. Together you can work out a modified curriculum, that takes care of at least some of the difficulties, that obviously met the school-leavers. It is natural to put in an additional couple of weekly hours for special ADL-training - taking them from what subjects? Is there something in the curriculum you don't need there? Should you intensify the ADL-training still more in the 8th - 10th grades, or should you perhaps reduce it there and instead give more hours of ADL during the last year of vocational training?

Either of the proposals is likely to give someresults in better adaptation for working life. The outcome of the efforts made in these

directions seems to be positive - but you have no measurements about which one, that is most profitable. The headmaster of one of our special school for vocational education and training of M.R. became so interested in this ADL-training, that he inaugurated five hours a week of ADL all through the 3 - 4 years of curriculum. I know that some of the teachers got tired of all this special ADL and also the pupils so the ADL-training had to be reduced to three hours per week. Most of the instructions about to behave in separate situations of work and social life has to be given during the regular lessons of all subjects.

Still it is a question of not-knowing-for-sure-but-having-to-decide. The day we have a report on intensive research on this field, we might be able to put in the right amount (or almost right) of special Adjustment to Daily Living into the right periods of the whole curriculum without stealing in vane some worthy hours from other subjects. From my point of view this research task is highly needed - but it is not the only one needed.

After this excursion it might be needed to go back to the curriculums again.

The principles of the curriculum construction are the same for the vocational training as for the vocational education, only the differences compared with the ordinary "gymnasieskolan" is much more noticeable. The timetable, however, is much alike those of the special vocational education and those of the regular "gymnasieskolan". There is the subject of "working techniques", that might variate between the skill to put together two neddles into a pair with the help of a counting tray with two holes and up to handle drilling machines or spot welding equipments. You might, too, see a great deal of traditional occupational therapy material, for example rug knitting, simple mat weaving, plastic pearl binding and so on.

The vocational training for M.R. has to give something to everyone, who is not able to be a skilled or semi-skilled worker. The capacity of the pupils will thus range from ability to learn to operate some machines to the ability to put together two sticks to a pair. The goal is for some to be able for competetive work, for others to get a sheltered work employment, for still others to perform a good job in industrial work therapy and so on down to the function, that only means that you

are dealing with something during work (or perhaps play) hours.

The theoretical subjects are on the timetable too. There is hours for Swedish, mathematics, civics etc. Swedish might imply basic speach training, learning new words, especially words, that belongs to the type of work the pupil is training, also for the "best" pupils some "block reading" of socially essential word like in, out, ladies, gent's, alarm, fire outlet. In mathematics the pupils might learn more or less of counting 1 - 9 objects, money counting, recognizing figures and finding them on measuring tools and instruments and thus being able to do measurements without real understanding of the meaning of numbers.

The same simplification is applied on "civics". Information is given about where to find a social worker, when needed, how to get in contact with the employment service, when and how to call for the police - but also about why you have to pay taxes and its deduction from your salory and last but not least about public elections and the right to vote. The M.R. are not set under guardianship if not specially needed, and if not under guardian they will have the same right of voting as other adults, both for parliament and for regional and community councils. So they are to be informed in a proper way by teachers, who are specially trained to give information to M.R.

Special trained teachers have been mentioned several times. I think Mr. Wessman will talk about that training in his Thursday paper. May I for now say, that teachers in the special primary school and in the training school normally have one additional year of special training as have also the teachers of theoretical subjects in the special vocational school and classes. The teachers of trade and occupational techniques have to their basic teacher's training half an additional year of special training for teaching handicapped pupils.

The dividing line between special primary school and the training school has been described earlier in this paper. There has also been noted the difference between vocational education and vocational training. It is to be noticed, however, that pupils don't go automatically from special primary to vocational education or automatically from the training school to vocational training. Firstly, some of the special primary school pupils are not apt for the more "advanced" vocational education

but are capable of some type of vocational training only. Secondly, it sometimes happens that a pupil, a very successful pupil, of the training school might be apt for vocational education to learn qualified semi-skilled work at for example a turret lathe in a machine shop or the mangle in a laundry.

The decisions on such placement of pupil from the training school into vocational training are based not only on pedagogic experience but also on some research findings. So has, for instance, Dr. Kebbon of Uppsala University shown in his treatise "The Structure of Abilities at Lower Levels of Intelligence" (Stockholm, 1965), that the abilities of the M.R. persons variate mostly in the some ways as by "normally gifted" persons. So can for instance finger motoric ability, coordination ability etc. be on higher than average standard.

Of course you don't know for sure, that the pupil you give a try at vocational education really will succeed to obtain the planned employment on the open labour market after perhaps four or sometimes five years of vocational education, including some periods of industrial practice. So what? Must this preparation, perhaps ending up with a good job in a sheltered workshop, be looked upon as made in vane? Is not there a chance, that the sheltered work will be of such quality, that the retardate might have a feeling of success in doing a good job and be a relatively skilled worker in that team? Or, if the person has to be placed in therapy occupation, is not also there the chance of doing a very good job, that is appreciated by foremen and customers?

The education and training is to be given to the M.R. to about same amount, as they are given to "fully gifted" persons. It might be looked upon as a matter of "the equality of man". That this formation also in the long run happens to be profitable for society is quite another question in this relation.

Hitherto has this paper dealt with the vocational school preparation of the M.R. for employment. There are, indeed, also other factors to take in account. The whole school-time is a preparation for adulthood. Quite special is in that respect the "prevocational practical orientation" during the eighth or ninth year of the ordinary school and during both the ninth and the tenth year of the special school for M.R.

The pupils of the special primary school and of the training school have to spend half the school-time during these two years as "Practical Vocation Orientating Pupils" in factories, restaurants, homes for the

aged, ware houses, department stores, workshops etc. The normal rhythm is that you go to school for six weeks, to the "orientating job" for six weeks, back to school for six weeks and so forth through two school years. The pupils of the special primary school usually are able to fulfil all of this program. Some of the pupils of the training school are also able to fulfil it, but mostly the placements are to be done with special care. The personnel at the workshop, the restaurant kitchen, the ware house or what it might be, have to be able to deal with more or less severely retarded young persons. That ends up to a great deal of placements in the regular work in institutions for mentally retarded: in the kitchen, in the garden, together with the janitor, by the storekeeper and other such personnel. One or perhaps two of the "orientation periods" might also be spent in a special school for vocational education and training of M.R. That in turn means, that the instructors at the vocational school can observe the boys and girls, who are to be pupils there further on, and might be able to give advice about what type of job, the pupil may be apt for or not apt for.

These orientation periods out on the labour market, open or sheltered, give the pupils an idea about the need of some knowledge of the three R's and other subjects, that they have to tackle during their school periods. They also get to know something about the working world as a whole. They might to some extent realize, that there are many jobs, that cannot be performed by everyone, but also, that there are things to do even if you are not too bright.

They find out, too, that you ought to know at least a little about rules and regulations out in working life, about its hierarchic system of chiefs and bosses, about the consequences of being late in the morning and many other everyday little things.

There are of course many goings-on, that the pupils do not understand or even observe. Thus they are encouraged to give a report when coming back for a school period again. The report might be given in the classroom as a narrative to teacher and class-mates, or it may be a part of a private interview with the teacher-counsellor in charge of vocational orientation. As well in the class-room as in the office of the teacher-counsellor the pupil has the chance to put questions to his teacher about things and occurrences, that he has not understood.

This practical vocational orientation occurs in all compulsory schools in Sweden, only that the "normally gifted" pupils have only two or three weeks at their disposal for this aim.

It is essential to keep in mind, that these periods do not mean some type of beginning vocational training or education but just an orientation in the society, the pupils are going to live in.

The society, the pupils are going to live in. Is that society such, that you really wish the M.R. to have to be a member of it with all its struggle and complications? Are our efforts to integrate the M.R. into a so-called "normal world" the right goal to set? Is the keeping of the adolescent M.R. in school on a compulsory basis up to 21 or even 23 years of age in line with the doctrine of the "Equality of Man"?

Should it not, for example, be training enough to send out the pupils on "prevocational practical orientation"? One county council had it that way for several years with good results and thought special vocational school needed only on "educational" level. And for instance Seattle in the state of Washington in the USA has a training system of that type with sometimes extremely good results.

Should you give all M.R. a special period of training "independent living" like they do among other places at a special department of Laradon Hall in Denver, Colorado, and in the Parents Association's and the Boy and Girl Scout Movement's institution in Uppsala, Sweden, for developing new methods of caring for and educating M.R. young adults? - In Uppsala the psychologist Kyhlén has for instance shown, that M.R. with an I.Q. as low as about 20 can learn to keep up a sheltered job with relatively good earnings and to live independent in an ordinary flat in the city with a minimum of help.

The list of questions can be prolonged almost without end. As was said in the beginning of this paper, the description of the Swedish system is not meant to be looked upon as an ideal prototype but to arise questions and discussion. Our system is new without long-time experience and of course without proper follow-up-surveys. There is still a need of research. We think we have found a system for just our society and for our days. As long as I know the started direction will be followed at least for the nearest years to come. During recent years there have been established several new vocational schools for the M.R.

between 17 and 23 years of age. The amount of pupils in those schools has been doubled during a period of five years. And the young ones and their parents are quite happy about that development.

Less "happy" are, however, those young M.R. who live in counties, where the vocational schooling chances still are scarce. Unhappy about their vocational situation are those, too, who left school before these new possibilities were there. Their preparation for employment was insufficient or perhaps none. There might be persons, who ought to have a placement on the open labour market - but didn´t got training enough to obtain employment in even a sheltered workshop.

Of that reason there are special courses for adult M.R. who didnot get proper training as young. They are arranged by the state authorities inside the system of retraining courses for handicapped and un-employed. So some of them will get their chance at last, though there are also some persons, who have declined too much during the many years of awaiting the chance.

This tragic situation was best expressed by a school principal, who had in spite of his own scepticism started vocational training for adolescent M.R:s on training level. He said: "When I see now the result of this vocational training, I am awfully sorry about all those older patients in our ward homes, who could have been occupied in sheltered work or sometimes on the open labour market, <u>if</u> we had started this type of education and training long before. I dare say, that I didn´t believe in beforehand in such results of this work. In fact I thought, that those writing desk specialists in the National Board had lost contact with grass-root realities. Now I see, that I was the one to be too narrowsighted."

And that, Ladies and Gentlemen, is the philosophy of a small nation on the question of preparing adolescent mentally retarded for employment. Some of our guessing has given good results, other pieces havestarted work in vane. Everywhere we meet the need of exact knowing, of at least some more knowing. If the proportion of Know How arises a few percent compared with the share of Guess How in this work, then still an amount of M.R. will get their chance of full integration into the society, they belong to, their chance of being full members of an adult world will increase to an astonishing degree.

This is a challenge to the researchers´ world - take it up - PLEASE!

Workshop Group 2 Tuesday Aug. 18th.

Q. Are there any new models or theories related to the training of adolescent mental retardates?

A. Several approaches were mentioned including Kephart and the Minnesota model with comments on the emphasis being placed on the over-all approach and work study programs.

From this discussion came the statement: job failure was not related to the training or incompetence of the retardate but to personal social factors.

Q. What are the specific goals in social competency?

A. Much discussion was provoked by this but the crucial point seemed to hinge on the degree of flexibility and adaptability of which the retardate was capable within the demands of the job. The "act of co-existence" as referred to by Mr. Nielsen in his earlier presentation would seem to be a desirable major goal in our training programs for the retardate.

Q. What degree of administrative centralization is optimum for effective programs?

A. This question was not fully resolved because it was agreed that the organizational needs of each country differs. It was also pointed out that our purpose at this conference was not to make judgements on national approaches but to exchange ideas and extend our knowledge.

The answers to a series of questions concerning research can be summed as follows.

Only in Sweden at the present time does it appear that teachers are knowledgeable about research, able to apply it to teaching and trained to carry it out in the classroom.

There is much random research which cannot help but result in ambiguity. There was criticism of findings based on poor research design but valid research results often are not put into action.

Research is a way of thinking, an orientation necessary for all educators, not only teachers, for alert and sensitive development

within the field of mental retardation.

There is a need for fundings and a greater public awareness of the importance of research.

Q+A. Yes, we can use staff other teachers to work effectively in an employment-goaled program, i.g. skilled tradesman, trained as teachers, counselors.

Q. A query as to whether there would be advantage in training for related skills rather than one specific craft or job, was in part replied to by the statement that retardates are often hired for the advantage of their proven stability in any one job.

Q. What kind of planning should be made for education for employment of the retarded in under-developed countries.

A. There was reluctance to give specific direction in response to this question. One response admitted the seriousness of cultural rejection. Another gave a realistic but discouraging prospect for employment within the economic content of an under-developed country - it was generally agreed that the first necessary step was one of social acceptance by the general population.

Q+A The problem of the retardate who does not fit the general curricular goals was considered - Specific instances gave emphasis to the need for a balanced acceptance of individual limitations, both by the retardate himself and by society.

Q+A The problem of the trained graduate who cannot be accepted into society because of the condition of the labor market is answered in at least one country by subsidized payment to the employer who hires a retarded person.

Questions which time limits did not permit the group to discuss:
If, as Mr. Nielsen stated, in the next 15-20 years work will become the privilege for the few, what then will the future hold for the retarded?

What is the possibility for adult re-training of the retarded, as we now have for the normally gifted?

What are our real goals, and more important what is the underlying philosophy? How strong is our demand for normalization or integration?

Brage Normark, Special Educator, Research Fellow, University of Wisconsin, USA:

"Instructional Materials for the Mentally Retarded".

All over the world, in practically every country on the globe, we nowadays find that people have a great concern for the mentally retarded; most people want to provide them with the best of services and programs. Our friend, Harvey Stevens, said once in a paper that there are differences among the countries reflected by recognizable environmental, sociological, cultural, political, and socio-economic variation. He said that these differences do not affect the philosophies or attitudes toward the mentally retarded markedly. They do, however, affect the manner in which programs and services are implemented in the respective countries.

One common denominator that can be noticed among educators at the present time throughout the world, whatefer the culture, whereever it is, is their interest and need for good, well-designed, well-produced, purposeful instructional materials for the mentally retarded learner. This need is present because of the tremendous backlog of unmet needs over the past decades. It is present because of increasing research which suggest new ways and corroborates old ways of reaching this learner through materials. It is present because of overall advances in educational technology which is offering new avenues of approach. It is evident because of increasing sophistication on the part of the special class teacher who now has a better understanding of the teaching learning and behavioral modification precesses inherent in the classroom. Finally, it is present because of relatively recent shifts in the concept of society, brought about mainly through public education, as to what the role of the retardate is in society, and what society can do to aid in the reaching of this role.

This need was specially expressed at the First Congress of the International Association for the Scientific Study of Mental Deficiency which was held in Montpellier, France, in September 1967. At that congress a symposium was devoted to instructional materials for the mentally retarded, under the chairmanship of Dr. Le Roy Aserlind, Professor at the University of Wisconsin in Madison, Wis.,USA. To my knowledge that was the first time that any such emphasis has been made in an international program.

Today symposiums on instructional materials is considered a natural part in national as well as international congresses on Mental Retardation.

Depending upon the historical perspective one wishes to take,the construction and production of instructional materials can be considered as a rather old well-established process or as a relatively recent area of academic attention. Visiting centers for instructional materials today, one might find some materials produced by e.g. Seguin and Montessori. The instructional sequences, methods and objectives of these materials are remarkably similar to the better efforts of today. It is worth reflecting on the fact that the wisdom we now dispense in our classtooms was developed and known by skilled teachers a half a century or more ago. Their impact was limited, not because that the knowledge and skills did not exist, but because of limited mechanisms of dissemination of concepts, knowledge, and skills which were then available.

In virtually every field we find people whose wisdom and knowledge marks them as being well ahead of their own time. We still have a major problem in the field of education in dispensing and disseminating new knowledge more effectively.

The most recent event in the US that has had a tremendous impact upon not only instructional materials but the whole field of mental retardation special education, is the President's Panel on Mental Retardation's recommendation in 1962. Among other things they recommended that: "instructional materials centers in special education units of state departments of public instruction or university departments of education" should be developed to "provide teachers and other educational personnel with competent consultation on instructional materials".

President Kennedy's Panel had originally conceived the idea of Instructional Materials Centers in Special Education from its inspections of overseas nations. Traditionally, continental special educators have made more of their own instructional materials than have their American counterparts, and many European special educators are actually certified to teach because, in part, of their skills in materials production.

The result came 1964, when two prototypes of instructional materials centers for handicapped children and youth were founded by the U.S. Office of Education. Today there is a network of 20 regional

instructional materials centers, whose major purpose and function is to dispense and disseminate new knowledge in instructional materials more effectively. As a dissemination agent, the center concept takes us a big step beyond the college professor, the textbook, the professional journal, or professional convention and meetings like this one here in Malmö. The basic objective of the Centers is to shorten the communication lag between those who have the necessary knowledge and skills, and those educators who need and wish to use them.

At the risk of oversimplification one might state that special education has grown tremendously over the past decades in regard to the number of pupils admitted to special classes, to the number of new class room units being established, in the number of special class teachers being prepared, the number of special education administrators being prepared, and the number of university specialized training programs being developed. Indeed, the growth has been phenomenal. A corresponding though not necessarily converging growth has taken place in the number of research projects which had handicapped children or special education programming as its focus. Research indicated that certain learning characteristics (e.g. rate of learning, retention, interference, verbal learning etc.) were often measurably different in the handicapped child when they were compared with non-handicapped children. Also, emperical evidence clearly demonstrated that most teachers of handicapped children, with the exception of the deaf and blind, most often had to use instructional materials developed for the normal learner or in many instances had to develop materials for their own classroom usage, and most frequently they had no immediate resurce from which to seek help. This condition was stated 1967 in France and stemmed partly from the facts that:

1) there was little concerted demand on the part of the individual special class teacher for specialized materials, most teachers have grown accustomed to developing their own materials,

2) special education represented a small, less-tempting market to the commercial producer;

3) there were no facilities to aid in the dissemination or evaluation of special education materials, and to guide the commercial producer in his creation, manufacturing and marketing of these materials; and

4) there was comparatively little emphasis on applied research or on attempts to convert research findings into classroom methods or materials,

A paradox of a similar nature existed in the use of media for the handicapped child. Again, research has indicated that judicious use of appropriate media can and does enhance learning. An informed survey at the University of Wisconsin conducted for the purpose of cataloging and classifying instructional materials for the handicapped revealed that in reality very few audio-visual materials existed which had been developed for the mentally retarded child. Many of the films being used in the special classes were too long for the short interest span of the retarded learner, the principal connotations were presented in too abstract a fashion, repetition of basic concepts was often lacking, and frequently the incremental steps in sequenced learning, though suited admirably to the normal learner, lacked the intermediate steps needed by the retarded child.

Fortunately, the above mentioned reasons for the lack of good, purposeful instructional materials are less serious today then they were some years ago. Indeed, there is a growing interest and demand for materials among the special educators to meet the needs of the retarded children. Seminars, institutes, course work, inservice training, programs etc. that present information about instructional materials, its use and evaluation are popular and frequently attended by teachers. They have an honest concern and desire to learn how to evaluate materials.

From the teacher's view the problem of evaluation focuses on selecting and using material which will increase children's learning. When a teacher decides to use or not to use an available material, an evaluation is being made. The criterion used is probably whether or not the material looks like it might help the pupils learn. This approach is surely a low level and highly subjective evaluation, but it is a start. From this simple beginning you can develop a useful approach to evaluation. The earlier mentioned Instructional Materials Centers in the United States have shown a great interest in the problem of evaluating materials and has in several cases developed methods for evaluation. They are in a great position to help the teachers in: providing means for sharing evaluative information, helping teachers increase their evaluative competency, indentifying

particularly promising, materials, and increasing the emphasis on the issues and criteria of greatest importance.

As I mentioned earlier is one of the reasons for the lack of specialized instructional materials, the little demand on the part of the teacher. I said that most teachers have grown accustomed to developing their own materials. Certainly the files of many of these teachers are literally bulging with self-made materials and multitudes of dittos. If these could be gathered together, they would represent a veritable goldmine of ideas for the development of new materials.

We know that it is difficult to make reliable and valid evaluations of anything. This is especially true of instructional materials, which can be either good or bad depending on the way they are used. Nevertheless, evaluation is both desirable and invitable. The issue is not whether we will or won't evaluate materials but rather how thorough we will be in our evaluations.

In the training program for special education teachers in Sweden today (and I believe that is the case in many other countries too) a good portion of time is spent upon training the teachers in creating and developing their own instructional materials. They are also somewhat trained to evaluate (or select and use) commercial instructional materials. In tomorrows curriculum for preparation of special education teachers I would like to see a less portion of time spent upon training teachers develop their own instructional materials and a larger block of time on training their ability in evaluation. For too long teachers have been required to function as an artist rahter than a specialist or a technician. It is ironic that in a specialized society when computers compose songs, Mog synthesizers play Barouque music and machines paint pictures, teachers and especiallv teachers of the mentally retarded, have to heavilv rely upon "intuition" and at times even "magic" in designing and construction of their own instructional materials. In my personal experience with teachers of mentally retarded, I have found numerous examples of how "desperately" teachers hope that what they are using as their educational tools is "interesting" enough to all pupils to keep them "busy' so that they would stay in the classroom for 45 minutes, without making "too much noise".

It is here proper to mention that there are many innovative teachers who recognize the reinforcing potentials of certain objects. These teachers are valuable and they can and should contribute their ideas to the materials designers and researcher, but they should not assume

the role of the materials designers. Again, it should be emphasized that the burden of construction of instructional materials should not fall on the shoulders of the teachers who are not trained for this purpose, and if they are, they are trained more as arts and crafts teachers rather than materials designers, because sometimes their training is not based upon emperical research, Moreover, the teacher, no matter how creative and capable she is, needs all of her time to observe and analyze the pupil's behavior and his educational defects so that she can determine the educational goal and through effective utilization of materials and methodology provide the child the most adequate education. Then she also fullfills her important secondary role, the role as a researcher, at the same time.

The second reason for the lack of instructional materials is that comparatively speaking, the area of special education represents a small market for the commercial producer of specialized instructional materials, and the problems of production is greater the smaller the country. Their corresponding production and marketing costs are higher, and their potential markets are likewise restricted to a greater degree. However, in the United States as well as in most Western European countries there has been a significant increase in the production of specialized instructional materials. This has been made possible because of the increased budgets in programs for the mentally retarded; the market for these materials has been made more attractive for the commercial producer. If attending the Council for Exceptional Children's yearly conferense in the United States and visiting the display for special education instructional materials one becomes positively surprised over the large number of publisher participating in the exhibition. The publishers devoting themselves to produce specialized instructional materials increases every year. They do, however, usually lack the means to conduct field testing and to exercise production controls that are required for the development of high-quality materials. Because of the present economic facts of materials publishing, there are some very general and not - too - useful materials of high quality and a few materials of specific interest that are of poor quality.

Again I refer to the SEIMC and the teachers possibility to give away the ideas about how the materials should be constructed and also assist the researcher in the evaluation of materials.

This leads us naturally to the third reason for the lack of instruction materials: there were no facilities to aid in the dissemination and for evaluation of special education materials.

Nowadays there are in many countries such facilities like the Special Education Instructional Materials Centers that I mentioned earlier and that has been developed in the United States. Similar trends can be found here in Sweden. During 1962-1965 was a network of instructional materials centers developed throughout the country. These centers do not have completely the same purpose as the ones in US; they are not created for special education materials specifically, and they do not function as a library, that is, they do not lend instructional materials to special education teachers or administrators within their specified geographical area, as the centers in the United States do. However, they fill an important function in the dissemination of information on materials, such as its effectiveness, characteristics, evaluation etc.

The fourth reason for the lack of materials was that there was comparatively little emphasis on applied research or on attempts to convert research findings into classroom methods or materials.

In his paper at Montpellier, France, 1967, and in a more extensive paper 1968 Dr. Le Roy Aserlind discussed some research - indicated characteristics of the mentally retarded and how these characteristies (e.g. learning, retention, interference, perception etc.) influences the development and construction of instructional materials.

The implications of some of the research in the education of the mentally retarded are numerous. For example, it has been suggested that the reason for the deficit in the area of discrimination learning of the retardates does not seem to lie in the area of instrumental learning, but rather in that of attention. It appears then, that stimulus properties of the instructional materials, could, and indeed do play a significant role in discrimination learning. Such conclusions, when applied in the development and the use of instructional materials, seem to be of enormous significance. E.g. how can cues, associated with instructional materials, be maximized to make them more distinct and attractive to the retardate and consequently facilitate discrimination learning tasks? Here we can see that we are dealing with manipulation of objects not as toys to keep the retarded busy, but as <u>tools</u> in the process of the education of the retarded.

As an outside observer, I would like to state that the United States is in a great position to aid many other countries in the world in their problems of materials research, development,

construction and production. This is not only my impression and experience. We have had a member of visitors from all over the world and they are always impressed by the access of materials. As an example I can also mention that we this summer at the University of Wisconsin for the second year had an international seminar on M.R. The participants in this seminar are spending lots of time studying specific materials of interest, even buying.

But the U.S. has also something to learn from Europe and other parts of the world. As an example I can mention that we also have American teachers visiting and studying in Europe as a part of their coursework. Their comments regarding instructional materials, particularly for the severely and profoundly retarded, are always very positive.

In the field of international development of materials and materials concepts, far more problems exist than even probable answers. But far more possibilities exist than even the most optimistics of us dare hope for.

It is therefore my pleasure to announce that not long ago were the first stumpling steps taken toward international collaboration regarding special education instrucional materials. A member of the group that met in Copenhagen last week is Dr. Don Ericksson, Director of the Council for Exceptional Children (CEC) Information Center. I have asked Dr. Ericksson to share with and inform us about some of the ideas that were discussed at that meeting. The importance and necessity of such a collaboration in the information and dissemination of instructional materials is obvious and I wish them good luck in their struggle to find a workable form for exchange of ideas and information about special education instructional materials, - Dr. Ericksson.

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Group nr: 3 Topic: Instructional Materials for the Mentally Retarded

Summary of Discussion

As a teacher of mentally handicapped children practising in England I am concerned with the development and availability of suitable apparatus for use in the classroom with these children. It seems to me there is a contradiction in the approach to this problem both by manufacturers and teachers which has been revealed in the discussion. Manufacturers appear to produce apparatus without consulting teachers and often teachers are not anxious to involve themselves with this kind of activity outside the classroom.

It is not only essential that the manufacturers of apparatus concern themselves more directly in the problem of producing the correct equipment, but that teachers be encouraged to bring forward the apparatus they are using. Most of the equipment being successfully used at the moment has been evolved by teachers in the classroom. It is not enough for manufacturers to produce apparatus; they must ensure it is sound educational equipment evaluated by trial in the classroom.

A number of other basic points have been brought forward including the following:

(a) Most of the present apparatus tends to be of a general nature and not designed to suit the individual needs of the child. More attention needs to be paid to helping the teacher to produce such equipment.
(b) There is an unevenness in the development and use of apparatus in various countries and ways should be found to interchange experience and equipment.
(c) Apparatus should be evaluated in a practical fashion in the classroom and a critical approach adopted.
(d) It is important to use materials linked with language and to encourage an all round development. Learning should be seen as a global process and equipment developed accordingly. (Haptic, visual, and auditory preception should be linked in the teaching process.)

(e) Material should be used imaginatively and representationally. Young and mentally handicapped children learn more readily by stereognostic recognition, and attention should be given to the production of equipment and models allowing children to understand through the appreciation of objects in depth.

(f) Education of the mentally handicapped should start as early as possible and it is essential that the children pass through the early stages of learning. Equipment for sensory education needs to be developed involving active, imaginative, participation by the child as well as the teacher, and to be carefully structured.

(g) It is important the needs of the children as well as the demands of the curriculum are considered whenever apparatus is being produced.

Herbert Gunzburg, Moneyhull Hospital, Birmingham, England:

The Application of an Operational Philosophy for the Education of the Trainable Mentally Retarded (Several Subnormal).

Introduction.

It is essential that the educational tasks relating to the severely mentally retarded should be approached systematically within the framework of an 'operational philosophy' rather than piecemeal when various problems are tackled which are of interest to individual workers, but are not depending on a definite philosophy of education for the mentally defective child. Let us therefore consider a realistic approach based on our present knowledge, and which is feasible within the time span available for the education of the mentally handicapped child and can also be executed with our ordinary resources - staff, money and buildings. If necessary, it can always be expanded whenever new techniques and additional resources should make it possible to teach the mentally defective child faster and more effectively than at present.

Certain principles and basic facts will determine direction and contents of the education of the mentally handicapped.

(a) The vague statement that education should develop the mentally handicapped child's potential to the fullest will have to be made more definite by adding the important qualification "social" to potential, i.e. developing his "social potential". In this way, the whole weight of the educational work will be concentrating on developing those abilities which will make it easier for the mental defective to adjust to the demands of his community and his needs for personal and social acceptance will be more readily met.

(b) The possible extent of a severely subnormal adult's "social competence" is definable in reasonably concrete terms. Even in the best case we would not expect him to function on a higher occupational level than an unskilled and semi-skilled worker, and we know that he will always require a certain amount of tolerance and guidance. The amount of academic knowledge needed in such a modest role is comparatively small and will have to be applied to only a narrow field of action (Gunzburg, 1968).

(c) These considerations indicate the need to adhere closely to a programme of "social education" which will further the child's social competence in later life. Social education comprises the learning of social skills and social knowledge which will help the retarded adult to be less conspicious in his community, to be more acceptable to it and to contribute to some extent to his support. It must give the adult mental defective a feeling of security, a feeling of being "at home"

and familiar with most situations he encounters in his everyday life and it must ensure that his social clumsiness does not trigger off feelings of insecurity and uncertainty. Social education means preparing a child for the demands of adult life, even though using techniques and approaches which are suitable for his childish mental capacity. In other words, the contents must be useful for his adult life, but the form of teaching must be adjusted to his level of maturity.

(d) Social education, even though it is primarily a means for teaching realistically the practical skills and requirements of social behaviour, is nevertheless also therapeutic in its implications. It can be considered as a concrete form of psychotherapy which will help to remove anxiety and disturbance by equipping the adult mental defective with skills and the social "know-how" which will help him to survive many of the small, but often very irritating incidents of everyday life.

(e) The time available for education is limited. The mental defective's slow learning speed will not make it possible for him to learn more than a fraction of what is normally tought in that time. The need for constant repetition, practice and application in varying situations will reduce even further the amount of learning possible in the available time. In consequence, it will become imperative to consider a syllabus containing only educational knowledge which is necessary and possible in the circumstances.

(f) Thus, it will be unavoidable to create an order of priorities among the social skills to ensure that even the slowest learner will learn something of benefit to him in his dealings with the community. This will also ensure that educational effort is not dissipated on various aspects of school education, which are not essential for reaching a reasonable level of social competence.

(g) The education of the severely subnormal child is directed towards one specific aim only - increasing his adult social competence in a particular well-defined role. Initiating "normal" academic education which aims at a broadening of outlook and knowledge rather than early specialisation, will make the educational effort for the mentally handicapped lose its singlemindedness which alone can make it effective.

(h) Aiming at competence in skills of "doing things" - whether they relate to Self-Help, Communication, Socialisation or Occupational aspects - is not only more relevant to achieving a reasonable degree of competence in the all important area of social behaviour, than the limited amount of knowledge of reading, writing and arithmetic knowledge the mentally retarded could acquire and use, it is also sound educational strategy. It is, after all, widely known that the mental defective's non-verbal skills are much better developed than his verbal abilities, and someeducationists have based their approach entirely on this fact (e.g. Duncan, 1942). As is also known that the mental defective adult's "Social age" is generally higher than his Mental age (Doll,1953, Gunsberg, 1964) it is wiser to reinforce the useful assets in the mental defective's make-up than to continue with attempts to remedy deficits, which could not, even in the best case, be corrected to useful efficiency.

In the light of these principles we shall have to reconsider the relevance of much educational work that is being carried out in mental retardation. It may well be that the very terms education, school, teacher, may have channelized our thinking into such traditional approaches that we find it difficult to aim at such simple targets which are different in so many ways, and are normally left to the informal education by life itself rather than the formal education at school.

I propose to discuss four aspects - namely, assessment, curriculum, teaching environment and staff, in relation to the principles of social education as outlined above.

Assessment and Evaluation

Assessments of children and trainees must be carried out regularly and systematically with a view to improving teching efficiency rather than to keep record files. Diagnostic reports based on standardized tests and giving only clinical and psychometric labels, are not as useful for this purpose as even home-made attainment records which indicate clearly and precisely the pupil's achievements before commencement of an educational programme and how much has been achieved within a given time.

An assessment of a situation is, however, relatively ineffective unless it can be evaluated in relation to other important factors. In a normal school situation, the relative success or failure of a particular pupil is judged by comparing it with the average attainments of a large number of other pupils of the same age. The terms "backward" or "superior"

include the definition "compared with average achievement".

It is rather surprising that the educationalist in mental deficiency never uses these terms when discussing the educational achievements of his pupils. It appears to be general practice to regard, by definition, every mentally defective child as "backward" which presumably he is, in relation to normal people on account of his intellectual subnormality.

This is a sterile concept and it would help the mental defective child's development and the teaching effort in general if it were acknowledged that a mental defective child - or adult - can function on an average level of efficiency, that he can be superior and, even more important, that he can be backward when comparison is made with the average achievements of other retarded people of the same low intellectual level and age. Comparing the achievements of mentally defective children and adolescents with each other is of far more practical value to teaching than obtaining scores indicating the width of the gap between subnormal and normal attainments. Whilst it may satisfy a clinical labelling approach to state that a mentally defective child, aged 12, scores in certain aspects like a normal child, five years of age, because it gives some idea of his general functioning, this figure gives no guidance as to what to expect in social functioning.

Educational work in mental deficiency has been bedevilled in years past by the absence of standards towards which the educationist could work with some confidence because they are within the mentally defective child's grasp. In an excess of over-caution, we have tended to set our sights low and, in consequence, our results are poor.

A practical method for achieving realistic minimal teaching targets will attempt to obtain average achievement level in social competence for various age and intelligence groups. These average achievement levels will make it possible to identify in an individual child those aspects in social functioning which are "backward" and in need of attention (Progress Evaluation Index). The assessor says, in fact: Why is this child so low in attainment, when most other children of comparable age and intelligence have achieved so much more? Such questioning should be the beginning of remedial action (Gunzburg, 1969).

"Average levels of attainment" are of a temporary nature and will be in need of frequent revision. It can be assumed that constant awareness

of educational needs will influence the contents of the educational programme, will make it more effective in particular areas, and will therefore lead, in due course, to higher average attainment levels. Thus, our levels of expectancy will be constantly raised until the point is reached where intellectual ability sets a ceiling to possible achievement.

In summary, it can be said that assessment and evaluation of social competence are essential devices for correcting our own methods of teaching because they draw attention to particular areas, initiate remedial action and result in rising levels of expectancy which will help to achieve increased social competence in thementally retarded.

Curriculum

To a large extent, the contents of the assessment will depend on the curriculum to be taught, and this in its turn is determined by the operational philosophy of social education. As already stated, priorities will have to be decided, and adjustments will have to be made on account of limited abilities and different levels of maturity.

Considering the slow learning speed of the mentally handicapped child, his limited capacity to learn, and the need to learn by doing rather than by listening, the preferred method of teaching social education should be practical and direct. It should also start as early as possible, concentrating on consolidating skills which are necessary and avoid introducing other subjects simply for the sake of variety. Variety in order to maintain interest should be the result of changing the presentation rather than the contents.

The syllabus must centre round the practical social skills which might be required in a community, and particularly communication skills of various types which will be necessary for a mentally handicapped who is to function in the community.

Priority in an educational scheme of this kind will be given to language skills which must be systematically developed. I refer here, not to those areas which are traditionally tackled by speech therapists, but rather to the many, often unsuspected difficulties, experienced by children and adults in their use of everyday language. Not only are they very often unable to express themselves but they have difficulties in understanding other people even though they themselves may use the

same vocabulary, but with different meanings. Language, instead of being a link can easily be a barrier, and it is absolutely indefensible to assume that this vital aspect could take care of itself and can be left to incidental learning asin the case of the normal child.

Second on the list of essential skills to be taught, should be the competence with which money is being handled. Not only are financial skills important for achieving a minimal level of social competence in the community, they also represent trying and unavoidable situations which increase the mentally defective's feelings of insecurity when he is made aware of his shortcomings.

The ability to read is far less essential to survival in the community than is often assumed. Though we literate people feel quite sure that a person without reading ability is severely handicapped in his dealings in the community, it is nevertheless quite easy to get through life without a reading skill. Even the teaching of a "social sight vocabulary" which provides guide posts to finding one's way through the complexities of signs, noticeboards and labels in everyday life, may not be as important as is always assumed.

If, however, the sight recognition of useful words, such as NO SMOKING, LADIES and GENTLEMEN, is to lead to the acquisition of a reasonable degree of technical reading skill, it will be important to design a reading scheme which develops from the sight vocabulary and appeals to the more mature would-be reader. This will also be an opportunity when the reading session can be made doubly useful by basing the reading matter on social situations and conveying thereby some form of social knowledge which could be of direct, practical value (e.g. Out with Tom Reading Books).

The ability to write is of little practical value to the adult mentally defective. In practical terms the only reading skill which is really essential for the mentally handicapped adult is writing his name as a signature. This should be made possible for even very severely retarded people, but teaching them to write a stereotypedletter has little point except perhaps as an educational consolation prize for parents and pupils alike.

Whilst it is appreciated that the illiterate mentally handicapped feels insecure and ineffective in the "normal" world of literate people, it would do him a disservice if educational work were to concentrate

on that type of academic work which is "normal" in the education of normal children. A careful selection must be made of those academic skills which would help the subnormal to "get by", to avoid embarassment, to find his way about and which would give him generally a feeling of being "at home" in his community. This utilitarian and limited range of academic knowledge may be sufficient to help him over initial difficulties and demands until a new situation becomes less disturbing. The contents of this type of education could be referred to as Social Education "First-Aid".

The main emphasis of the educational curriculum must, however, be put on the acquisition of a practical knowledge of social "know-how" - which comprises (a) those skills of self-help which would make a subnormal more acceptable and tolerable to normals, because he is so often different or conspicuous in his habits, such as eating and dressing (b) skills of communication which enable him to understand and react correctly to the various elementary ways by which people communicate with each other, c) skills of socialisation which will help him to occupy himself and which might make it possible for him to contribute towards his support.

The consolidation of relevant social skills and their application to new situations could well be regarded as the major task of the educational effort. Considering the child's severely limited potential there is no virtue in giving him many experiences of a different character which will confuse and disturb him. On the other hand, to give him a feeling of security and confidence by letting him experience familiar situations with small variations and varying levels of difficulty will be of great benefit. Some such situations lend themselves easily for repetition throughout the child's school life, but can be made more difficult and attractive with increasing age and skill.

For example, the shopping situation can be experienced and played through at the nursery stage right through to the senior level and can be given new twists and new appearances at different levels. It can prove ideal for encouraging the language programme, the practising of money operations, the reading of labels, the signing of slips. Shopping of varying kind and varying demands can be rehearsed at every level and is a specific preparation for adult life.

An intensified teaching environment

The very words 'school' and 'teacher' are such stereotyped concepts that it seems nearly impossible to consider a school environment in any other than traditional terms. Yet, since it has already been established that the education for the subnormal child should be of a social type rather than an academic, it is highly doubtful whether the traditional school designed for the teaching and learning of academic knowledge is the most suitable environment for our purpose. Indeed, it may well be argued that the very demand for normal school conditions comparable with those experienced by the normal school child, may not be serviceable, indeed, may interfere with the practices of social education. It is true that many people in the profession, and certainly most parents, feel that the mentally handicapped child should be dealt with in normal school conditions and should have a normal school life. Much of this argument is reinforced, or even triggered off, by emotional thinking which assumes that "normal education opportunities" should not be withheld from the retarded child. Since, however, the "normal school conditions" relate primarily to a particular approach of teaching a type of education which is different from "social education" there is no virtue in accepting the normal school environment only because we are used to it. It might be better to sacrifice a traditional approach designed to attain specific goals which are however inappropriate in the case of the mentally handicapped because the target of social competence is of a different nature and has to be reached by a different route.

Most of the social skills required are either learnt at home or in ordinary situations outside the home, such as shops, streets, restaurants, post offices, transport. Many of the relevant skills and knowledge will have to be acquired by giving the mentally handicapped opportunities to experience real situations in life, and thus most of his social education should take place outside any form of classroom. However, the necessary preparation for these excursions into life and the education for "domestic" social skills should be done in a domestic type of environment, which has a full range of learning opportunities which are relevant to the final aims. Thus, a teaching environment of domestic appearance would be more appropriate for social education than a traditional school environment with desk and blackboard. Since

the main aim of all teaching and training is to increase social efficiency, it is wasteful to familiarise a child with two different environments (traditional school and home) for no particular reason, when one of these environments - the school - is temporary and acquaintance with it will not improve the competence with which the mentally handicapped adult will tackle the demands of life. Even though this might be considered as depriving the mentally handicapped child of an experience common to normal children, it is a small price to pay if, on the other hand, we can increase his confidence and familiarity with different types of settings and domestic demands.

The teaching and activity spaces of the school for the mentally retarded child, should therefore, not resemble classrooms in the traditional sense but should be living spaces of varying character to familiarize the mentally handicapped child with many different environments and different requirements.

Because of the very fact that mentally handicapped children are deprived of so many natural learning opportunities, it will be necessary to utilize this type of school environment to make it a vehicle for experiencing 'variety.' Familiarity with potentially difficult situations which are presented in varying contexts and in varying forms is an essential factor which will help his ignorance of everyday demands.

Though the success or failure of educational efforts depends ultimately on the people who deal with the child, there is little doubt that "a well designed building can be a valuable instrument in the hands of the teacher because there is an "interdependence of living and learning". (Department of Education and Science, 1965).

The "Auxilliary Teacher":

The educational process must not be departmentalised, which is invariably the case when teaching is considered to be the domain of the school, whilst leisure and social attainments are carried out at home or institution. Since social education is to give the subnormal a way of living which must be taught practically in a comprehensive situation, it follows that the operational educational policy must insist that the same type of educational programme is carried out wherever the child may happen to be.

The task of the school would then be primarily to initiate the teaching of various aspects of social education and to apply expertise to particular teaching problems. The task of the environment, whether the home or the institutional facility, would be to consolidate what has been learnt and to arrange for additional learning opportunities where the skills which have been taught can be applied in different situations.

It follows from the foregoing that the roles of the various people concerned with the education and training of the mentally handicapped, are not as sharply differentiated as they are at present. Since the educativeprocess is an active one which extends over the whole waking life of thementally handicapped without however being limited to set lessons and exercises, the contribution of people who are not specifically trained as teachers, must nevertheless be an educative one. In particular, it will be important that the "climates" of the environments (school, home or ward) are not so distinct without good reason as to deprive the child of relevant learning situations. It will be important that the staff outside the immediate teaching environment, are fully aware of the fact that their contribution to the rehabilitation of the mentally retarded is not merely the caring and passive role of proving food and accommodation, toiletting, washing and dressing facilities, but that they themselves have a definite educational role within a general training programme. There is too much of a tendency to leave the teaching to the teacher, when in fact social education must not be conceived in terms of subjects which can only be taught by people with particular qualifications.

It cannot be stressed too much that social education does not consist mainly of teaching a social sight vocabulary, dealing with money, writing signatures and learning to cook. This approach which is adopted by some people is a very weak and whittled down adaptation of normal school education. If, on the other hand, the whole environment is in sympathy with the requirements of social education, then each part of the daily routine will have to be inspected to decide how far it can contribute towards the aims, how far it interferes with achieving these aims and how far it has to be adapted to become more effective.

Final Remarks:

Many people regard every person who is mentally handicapped as a "patient" who cannot help himself and whose deviations in behaviour and outlook are only due to his mental handicap. The fact that even

a mentally subnormal child can be normal in his "naughtiness" just as he can be backward in his achievements compared with other mentally subnormal children, is seldom acknowledged, nor is the fact that he can be mentally lazy like any other normal child. We are, in any ways, spellbound by the very real learning difficulties encountered by the severely subnormal child when faced with the demands of a normal education. Probably too much time has been spent and is still being spent, on trying to fathom the nature of these difficulties and to teach him educational skills of which he cannot make practical use.

Many of the learning difficulties, including deficiencies in attention span, retention, visual perception, etc., would represent far less of an obstacle to the education of the mentally handicapped child if we were honest with ourselves, parents and children, and insisted to teach primarily those aspects which are useful and directly to the point, and for the learning of which this child is mentally much better equipped. This is not a return to teaching occupational skills only, but an emphasis on the fact that the mentally defective adult will be much happier when he feels "at home" and secure in a world which has been made familiar to him, than if he has been taught any amount of educational circus tricks. And he will be acceptable too, and tolerated by most people, if he can conform to the conventions and customs and does not irritate by social ignorance which can be avoided.

To achieve a reasonable level of competence, which would make the mentally defective adult more efficient for life, either outside the protected shelter of an institution or inside such an institution, his education must, from the beginning, be shaped by the principles of social education. These will apply to the learning environment, the school, which has to intensify the number and variety of learning opportunities and stimuli, and they will also extend to people and situations outside school. Most of all it will have to be accepted that education will have to be far more directive and specific than in the past and must not be sidetracked into a meaningless and ineffective copy of "normal education".

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Summary of Discussion. Stevens Mildred.

Wednesday, Room 1.

It was valuable to receive beforehand a copy of the paper presented by our Danish colleague. Perhaps I express the appreciation of all in recording this.

Discussion ranged round the following topics

(1) Integration - Segregation
(2) A language research project and information about a film
(3) Terminology
(4) The learning environment on ward/classroom
(5) The image of the teacher

Integration - segregation.

In the absence of any reported research findings it became apparent that varied experience exists. The question has no clear cut answer for the development and organisation of services for the handicapped appertaining in each country is so historically and economically variable.

Language.

The usefulness of the Illinois Test of psycholinguistic Abilities) as an indicator of mentally retarded children's language needs was suggested (Malloy). Results found in a small group of children (Downs Syndrome) tested with I.T.P.A. showed that some children were performing in various areas of language in advance of their tested mental level (Stanford T.M.). Two children were one year ahead of their tested mental level. Time did not permit development of this interesting topic (Romanoff)

A film "Are you Ready" demonstrating language teaching techniques was usefully mentioned (Julia Malloy Education Centre, Illinois, USA)+) Discussion regarding the sequencing of language tasks and task analysis took place. A Performance Goal Record will be available 1971 as above.+)

Terminology.

The group was reminded that our use of words often reveals attitudes and perhaps influences our ultimate expectation and treatment of handicapped persons. The continued use of outdated terminology and

words describing clinical conditions identified children as types rather than persons. Such a practice was strongly criticized and recommendations made e.g. Severe learning disability,
Mild learning disability (McKenna)

Ward/Classroom Environment.

Some of the statements concerning the ultimate effects of stimulation (Tineke van Oudenhoven) were challenged (Stevens).
She claimed that institutionalized male adults with severe learning disabilities were more able to cortribute to the work of the Industrial Therapy Unit after receiving a stimulating programme of activities (tape recorder work, individualized teaching, music, opportunities for creative work) over a period of two years. They also began to make their own decisions regarding choice of activity and to participate in simple social games.

Dr. Gunzburg slides indicating possibilities for providing a similar learning environment in the ward and the classroom were discussed. This enabled him to pin point important aspects of his paper viz:-

(a) Mentally retarded children must continually receive the same experience in as many different ways as possible.

(b) Learning must be initiated in school and continued on the ward.

(c) The traditional image of the teacher must disappear.

I should like to conclude this summary by reiterating the words of Julia Malloy "that we pursue exellence wherever we work with children and that we strive towards becoming effective people who provide intriguing things to give necessary experiences". If we can succeed in these we will surely serve handicapped persons more fruitfully.

Name: Harris C Teller
Title: Resource Teacher of Special Education
Address: 1130 5th Ave., Chula Vista, California 92011, USA.

Group nr: 5 Topic: Social Training and Vocational Adjustment of the Adult Retarded.

The following questions were raised by the panel and during the discussion:

1. What is an Adult Retarded?

2. What is social competence?

I submitted the following answers to the above questions.

1. An "Adult Retarded" is a retarded individual who sees himself as an adult. This does not have a great deal to do with M.A., C.A. or I.Q. Therefore the retarded goes thru the "ages of man" as all others. They are first a child and they see themselves as children; then they undergo the transition period (usually called adolescent). During this period the individual is treated by others more and more as an adult until the individual personally accepts the role of an adult, i.e. "sees himself as an adult". Some retarded will never reach this stage. Therefore an individual may be 40 and a child or 18 and an adult.

2. The definition of "social competence" that I would like to submit is as follows:

An individual can be considered to be socially competent when he has arrived at that point in development when he is aware of the effect of his behaviour on his milieu.

For example, if an individual is aware that when he strikes another the result will be rejection, possibly physical response, and he has sufficient control over behaviour, he may be "socially competent". Then if he hits another, he is not less "socially competent" but exhibitions irresponsible behaviour.

Professor James F Winschel:

Teacher Training and the Plague

There is a danger in leaving the cloister of one's academic community to speak before a learned gathering of peers and colleagues - peers and colleagues, but strangers all the same. The danger lies in the almost overwhelming inclination to be what one is not: to be witty when one is dull, to be wise when one is merely foolish; and to appear to attack boldly the frontiers of theory and practice when in fact one walks haltingly and afraid, enveloped in ignorance and haunted by the spectre of failure.

What can I say about teacher training of which you are not already aware? The recitation of statistics would bore you - and me; the summarizing of research would only add to your distraction; and the quoting of scholarly opinion seems almost superfluous before this group, as much as any, responsible for its composition.

As a last resort I might yet fall back on the time honored exposition of personal success. But truth rather than modesty stays my tongue. Failure seems more the hallmark of my career - and if today I am to instruct, the lesson is to be found as much in the inadequacies of that career as in its modest victories.

Let me raise the questions boldly! Have teachers in training been enthralled by the brilliance of my lectures? I think not. Do teachers in training revel in the mystique of my clinical observations? I think not. Have colleagues envied the wisdom of my philosophy? I think not. Are the mentally deficient better off for the teachers I have trained? I think

yes; I think no. I think I do not know - indeed, I think I am afraid to know.

Weeks ago I thought I knew just what it was I wanted to do and wanted to say today. I would ferret out the myths that permeate our professional interest in teacher training, lay them before you for all to see and then vigorously and publicly I would stamp upon them until either they or I lay exhausted before you.

But the more I examined this strategy, the more it became apparent that I was a part of those myths - more than that - I personified the very myths I sought to excoriate. And if punishment were to be meted out, it was I who was guilty - and I who must bear the whip.

My remarks today, then, are not so much an indictment of teacher training as they are a confession of sin - and my purpose is not so much to destroy the myths which surround me as to unmask the falsehoods upon which a professional career stands shaky and uncertain. On reflection, I am aware that what I have to say is more a confession than a speech, is more emotional than scholarly, is more truthful than wise.

I started to teach retarded children 22 years ago and I could tell you a heart warming story of how I began and of how my interest in this work developed - I won't. I won't because it's all a lie - a lie that I have repeated to hundreds of teachers in training in the last ten years.

In fact, I decided to teach retarded children because I so lacked confidence in myself and was so intimidated by the prospect of teaching

bright children that I sought a haven in those who were not so bright. And I continued in my profession as much from the need to feel superior as from the desire to help my fellow man.

Is this the substance of a teacher trainer? Why, I wonder, has it taken me so long to voice the truth?

My doctoral dissertation was an investigation of the efficacy of several incentive conditions in altering the performance on a variety of tasks of mentally retarded and normally learning children. It was a project which I began with high ideals and moral exactitude - all of which was eroded in small but telling ways with every inch of progress. Serious faults in both theory and design cast a pallor of doubt upon my results.

Fortunately there was an advisor who both saw the truth and demanded that it be told - and you will find it there (if you look very carefully) in the last paragraph, couched in language academic and unfathomable that my thesis was a distortion of truth - and a step backward in man's quest for knowledge. It was, in effect, but another contribution to the myths upon which we have built both theory and practice in the education of retarded children.

Is this the substance of a teacher trainer? Why, I wonder, has it taken me so long to voice the truth?

In similar vein, some time ago I engaged in a research project with a person whose publications, if not legion, are at least numerous. Oh, the fact is my role (in spite of a professorship) was that of apprentice, or assistant-flunky, you might say.

During the course of this investigation it became clear that my associate had few research skills - and yet fewer scruples in the manufacture of data. Yet, even now, certain decisions about the welfare of handicapped children are being made on the basis of this person's past research - and I find myself sitting uncomfortably upon additional data which, when cleverly fictionalized, will be deemed worthy of publication.

Why have I not exposed this culprit? Why am I afraid? Is this the substance of a teacher trainer? And why has it taken me so long to voice the truth?

My youngest daughter was something special to her father almost from the time she was born. She walked early and talked early and early she captured her father's heart.

The massive and prolonged convulsive seizure she suffered at 15 months of age shook my confidence in the justice of nature and the wisdom of God - but I continued to hope, and the enemy within lay quiescent - and a little girl grew with vigor in body and mind.

And then at 5½ years another massive seizure struck her down and left her for a time paralyzed - and for the years since she has manifested many of those characteristics common to brain injured children - how colossally ignorant nature can be!

Then for 6½ years - nothing - until last fall the beast struck again, and again, and again - and is now at best kept at bay through the careful administration of drugs - waiting as it were to pounce upon my prize.

I hate this thing. I do not accept; I will not accept; I cannot accept.

What a hypocrite I've been these years in counseling parents of retarded children in the art and necessity of acceptance - and I wonder if I haven't deceived numberless teachers in training who have sought to understand the counseling process. I have allowed a myth to grow around me. I have appeared strong when I am weak, and I have extolled the virtues of acceptance when I do not accept.

Is this the substance of a teacher trainer? And why, I ask, has it taken me so long to voice the truth?

But the final myth about which I speak is more serious than these for it is a pretension upon which my very professional life may hang - a pretension that I can no longer abide.

Love - no, not love - but the absence of love is at the heart of this deception.

Those I teach and those I guide, those with whom I converse casually and those to whom I speak formally have accepted without question my commitment, my concern, my <u>love</u>, if you will, for mentally deficient children. Twenty-two years of work in the field are proof enough, they seem to say. But I am less sure than once I was. I think perhaps I have come to love mental retardation more and retarded children less.

Mental retardation has provided me with a comfortable office and a reasonably comfortable salary. Mentally retarded children are sometimes incontinent and sometimes they look disturbingly different.

Mental retardation has brought me associations with bright, witty, sophisticated people; the mentally retarded, in comparison, are ever so dull.

Mental retardation sends me to such wonderful meetings and conventions where I have such a superb time seeing new sights, renewing old acquaintances, and making new friends. And where, unless my faith is quickly restored, I shall play the professional meeting charade without purpose or meaning; the mentally deficient, on the other hand, whether in homes, or classrooms, or institutions only haunt my dreams - God, I wish they'd go away.

That is what I think; that is what I feel.

Why has it taken me so long to voice the truth?

Well, there you are. The myth of one teacher trainer lies exposed for all to see - to see what happens to a man when he forgets - not how to care - but what to care about; not how to speak, but how to speak the truth.

Today I have tried briefly but publicly to face myself in hopes that I might inspire others to do the same - and in laying bare the hypocrisy that infests us, we might yet be worthy of our calling.

It is not my intention to tar this audience with the brush I use upon myself - and yet I wonder --

I wonder if there are any among you who dislike children, and yet are trapped in teaching or in preparing others to teach because you can't ever face the truth.

I wonder if there are any among you who utilize work with the mentally retarded as a vantage point in the exploitation of human beings.

I wonder if there are any among you who are so driven by the need to publish successes in the training of teachers that you have lost your way in the search for knowledge, truth, and objectivity.

But more than these, I wonder if there are any among you who seek only to be what you ought to be - afraid to question what you are - who seek only to be what you should be, forever neglectful of what you could be.

What I really wonder is whether we are not all caught up in a plague of mediocrity and self-satisfaction. How else can one explain the self-praise in which we as a profession bask? And in our delirium we seem unable to discern whether we are the carriers of that plague or merely its victims.

In one memorable scene from Albert Camus' novel, The Plague, the young journalist, Raymond Rambert, and a town physician, Dr. Bernard Rieux, engage in a dialogue on the nature of plague and the struggle to contain it. I quote:

"So you haven't understood yet?" Rambert shrugged his shoulders almost scornfully.

"Understood what?"

"The plague."

"Ah!" Rieux exclaimed.

"No, you haven't understood that it means exactly that - the same thing over and over and over again."

The young journalist, by way of justifying his plan to escape quarantine, then goes on to decry the sense of heroics which seemed to characterize the struggle - and the lost capacity to love which seemed to characterize the townfolk. Suddenly appearing very tired, Dr. Rieux rose to answer:

"You're right, Rambert, quite right and for nothing in the world would I try to dissuade you from what you're going to do; it seems to me absolutely right and proper. However, there's one thing I must tell you: there's no question of heroism in all this. It's a matter of common decency. That's an idea which may make some people smile, but the only means of fighting a plague is - common decency."

"What do you mean by 'common decency'?" Rambert's tone was grave.

"I don't know what it means for other people. But in my case I know that it consists in doing my job."

"Your job! I only wish I were sure what my job is! Maybe I'm all wrong in putting love first."

Rieux looked him in the eyes. "No," he said vehemently, "you are <u>not</u> wrong."

Now as one who has experienced the plague - for what else do you call the hypocrisy and self-doubt that has stalked my career - I would have our young teachers, above all else, learn these two lessons:

First, remember that it is only a question of time before you catch the plague. For some it may take the form of petty dishonesties in relations with children or colleagues; for others, it is the conservation of energies which should rightly be expended in the service of children; and for still others it is the faint mockery and subtle cynacism with which the experienced teacher greets the idealism of the novice. God forbid, in its most virulent stage the plague manifests itself in a dull repetitiveness in teaching which subjugates the spirit, constricts the soul, and limits the intellect - of teacher and student alike.

And I would tell these students and teachers that the antidote for plague, when it strikes, lies in an honesty with self and a steadfastness to their calling - for what we do is a noble work and "common decency" requires that we go on. And in going on we may yet discover about ourselves (as Camus has said) that in time of pestilence "there are more things to admire in men than to despise."

And, secondly, I would tell students that Rambert was right when he placed love above all.

I say love because I am disenchated with research and technology. I say love because manpower and money alone have succeeded so little in ministering to the ills of education. Love, because without it special programs of training are often dedicated to the self-interests of their

promoters; love, because in the end it is the only quality I know that can bind student to teacher, ignorant to educated, and man to man.

We have spoken today not only of the retarded, but of ourselves. And as I grapple with the seemingly unfathomable determinants of human behavior, I am convinced that in the decade ahead we must build a profession in which we will not understand the retarded less, but rather ourselves more. The philosophy and technology of the future will set the retarded free, I think, because they will be applied by teachers who understand themselves - teachers unafraid of the plague - teachers unafraid to love.

TEACHER TRAINING PROGRAM IN BRAZIL - Prof. OLIVIA DA SILVA PEREIRA

The Teacher Training Program in Brazil usually include the following systems: Undergraduate courses - Graduate = Postgraduate.

Those courses are supported either by official or private funds. The official funds come from the Ministry of Education, through the National Campaign for Education and Rehabilitation of the Exceptional - CA DEME - and the State Board of Education, Division of Special Education.

The undergraduate courses comprise: Short term or long term courses.

The short term courses take place in Summer and include "Workshops on Special Education" for instance: Recreation courses of Sociedade Pestalozzi do Brasil, the special courses of the Parent's Association and other facilities.

In-Service Training Course: these experimental courses have been organized and offered by official or private facilities with the aim to increase general knowledge and skills in students and sympathetic approach to the needs of mentally retarded. (Parent's Association, Pestalozzi Societies, etc.)

GRADUATE PROGRAM

The graduated program is designed for students or teachers or other professional people who are working toward a degree in the field of Special Education.

The program is conducted by official and private facilities in agreement with the Institute of Education or State Board of Education. The duration of these courses is from 2 to 3 years. The content of these courses comprise:
a) lectures on basic curriculum
b) practicum in special institutions.

Out of 22 States, 13 have special education courses. We have no statistical data to inform the number of teachers trained by those courses.

Those who complete those courses receive a certificate registered at the Division of Special Education of the State Board of Education.

There have been many attempts to organize graduate courses at University level and isolated experiences have been conducted by some institutions, for instance:

A) 1951 - 1953 - The Sociedade Pestalozzi do Brasil established the pioneer 3 years course at University level, in agreement with the Medical School of the Federal University of Rio de Janeiro. The persons graduated by this course had the opportunity to register their certificate at the Division of Graduate Teacher (Ministry of Education).
Right now great effort is being made to define the legal aspects of those who are graduated from Special Education Courses in order to define the professional status.

B) 1959 - 1961 - The Catholic University of São Paulo started another one year course to train personnel for the area of mental retardation.

C) 1970 - The Catholic University of Rio de Janeiro started the first 3 years courses of Education of Exceptional Children as an integrant part of the Department of Education.

In 1968, the Ministry of Education, by the Act no 352 11/10/68, has designated a special Committee to study the possibility to create the courses of Special Education at University level as well as to propose measeures to be taken for the regulamentation of the profession.

Other facilities both official and private are increasing the movement to establish the graduate course at university level.

The professional people concerned with the training and teaching of mentally retarded young adults require a different kind of training. The Sociedade Pestalozzi do Brasil organized since 1965 special courses on Vocational Habilitation of mentally retarded young adults. These are 1 year course with a basic theorical curriculum and practicum - including special subjects on work-habits - social competence - practice in manual skills, etc.

This pilot experiment has motivated other institutions to start the

same kind of courses, for instance, from 1969 - 1970, the S Paulo Parent's Association in agreement with the State Board of Social Welfare, organized 4 courses and more than 120 persons have been trained.

In other hand, in recent years an increasing amphasis has been laid in training personnel for Sheltered Workshops and Occupational Training Centers.

Ng Fook Kah, Hon. Secretary, Singapore Association for Retarded Children:

Towards Special Education for the Mentally Retarded in Singapore.

Greetings were conveyed by the speaker, Mr. Ng Fook Kah, the Honorary Secretary of the Singapore Assiciation For the Retarded Children to the Conference.

The speaker brought out two areas of immediate concern on special education in the Republic of Singapore. These are:

1) Financial aspec s. Up to now since the inception of the Association in 1962, it has been supported by public funds. To implement a full programme of special education, the Ministry of Education would be the only adequate Agency to look after the programme för continuity and long range planning and the magnitude of the problem.

2) There is the need to be supplied with instructional materials, aids and the like from well-established nations which have successfully launched their special education for the mentally retarded.

The presence of the sole delegate from Singapore hopefully aspired that the above 2nd point would be resolved by the expertise of professional colleagues in their deliberations at this First International Conference on Special Education and Rehabilitation of the mentally retarded here in Malmö, Sweden, on 17-21 Aug. 1970.

The Singapore delegate informed the Conference that

In 1965 the First Seminar on Special Education was held organized by the Council of Social Service. As a result of this seminar, the Committee on Education of Handicapped Children was instituted as a Standing Committee.

In April 1969 the Association hosted their First Workshop Colloguium entitled "Towards Understanding Mental Retardation" on the medical, social, educational, psychological and parental aspects of mental retardation.

In June 1969, the Standing Committee of the Educ. of Handicapped Children under the sponsorship of the Singapore Council of Social Service held

a Workshop symposium on Special Education.

In July 1969, at the National Seminar of Innovation and Technology organized by the Singapore Ministry of Education under the auspicis of the South East Asian Ministers of Education Organisation, the speaker delivered a paper on "The development of a Special Education Programme" in Singapore.

In Feb. 1970, the Association sent its senior workers to the Fourth Scientific Congress of the All India Association on Mental Retardation.

This month brought 2 delegates out to Europe. The speaker is one, the other is a parent and executive committee member to The Assembly Meeting at the Hague in the Netherlands organized by the International League of Societies for the Mentally Handicapped between 17 - 21 Aug. 1970.

In Nov. this year, our psychologist will be a participant to the International Conference on Exceptional Children in Honolulu, USA.

Responding to the remarks made by Prof. James Winschel at the morning session, that teachers should be unafraid of the plague and be unafraid of love and the moving story of Dr. Julia Molloy at the group I afternoon panel (19/8) that the phrase "Be kind" was understood only as "what kind of ice cream" to a retarded teenager, and the appealing cry of Dr. John Mc Kenna of Ireland, that we pedagogues and professional men should refrain from using hurting terms as mongoloids, idiots, imbecile, the speaker concluded by citing a much cherished quotation:

Children learn what they live

If a child lives with criticism
He learns to condemn.

If a child lives with hostility
He learns to fight.

If a child lives with ridicule
He learns to be shy.

If a child lives with jealousy
He learns to feel guilty.

If a child lives with tolerance
He learns to be patient.

If a child lives with encouragement
He learns justice.

If a child lives with security
He learns to have faith.

If a child lives with approval
He learns to like himself.

If a child lives with acceptance and friendship
He learns to find LOVE in the world.

Toshihiko Miyashita, Director, Sagamihara, Kanagawa, Japan:

Early Education of the Mentally Retarded in Japan. -
The Aoitori kindergarten for the handicapped, Yokohama, Japan.

We have to take up the early education of the mentally retarded in the unhappy situation, that is, in the general delay of countermeasures for the mentally retarded in Japan. The national child welfare congress represented the necessity of early education to the Ministry of welfare and Health. The association of general research of the special education requested the Ministry of Education for more fruitful plan of early education. Nevertheless, either of the ministries has hardly taken a step yet.

As to the early discovery, we have a system of medical and psychological examination for the 3 years old and also for 5 years old throughout the country. Generally speaking parents of the handicapped try to avoid facing reality. Accordingly, children diagnosed in early stages are usually out of bounds of care at home. Most of them are so-called "the mentally retarded with behavior disorder". They are partly similar to brain injured or minimal brain damage described in the USA and also to Oligophrenia with remarkable disorder of personality and activity introduced in the U.S.S.R. In our country the expression "Autistic child" is very widely used.

As to the method of early education specially for such children with behavior disorder, we have 3 points. The first is medical care. In many cases we give medicine according to doctors prescription. Sometimes we just fear medicine might be too much used for the purpose of covering short of caretakers. The second is psychological approach. By taking an acceptive stand, we try to find out what positive significance this so-called "behavior disorder" has for the child, and it will help us get a clue on the future therapy. The third is educational or training approach. Here we usually place children in a certain confined space and force them to act to regulated routine. These points are put into practice as daily program along with the routine of a day.

We are in a time of trial and error. The form, the scale, the management vary depending on each, but its movement is under its way.

Morton A Seidenfeld, Ph.D.:

THE REHABILITATION OF THE MENTALLY RETARDED: THE CONTRIBUTION OF RESEARCH TODAY AND TOMORROW

Introduction

Mental retardation is probably one of the oldest of man's ills. In spite of its long history, it remains as one of the problems that scientific advancement does not seem to have brought under control. In part this may be attributed to the fact that mental retardation is not a disease but is rather a symptom complex primarily recognized by behavioral variations from established patterns of conformity in educational, social, vocational, and communal situations. The mentally retarded demonstrate their inability to learn as easily, to use their learned knowledge effectively, and to accept their role in society with the same ease and degree of conformity that their so-called normal peers do. Obviously, all degrees of qualitative differences exist ranging from almost normal behavioral patterns down to almost complete inability to do anything in a fashion that will satisfy his peers.

Such a broad spectrum of behavioral variation would make it difficult enough to categorize the mentally retarded; but, when we add to this the very wide range of etiological sources of clearly identifiable organic retardation, plus the extremely high frequency of unknown factors which appear to lead to functional mental retardation without a known organic basis, it becomes clear that any solutions to either prevention or correction of the retardation syndrome is bound to be extremely difficult. Maximal progress, from the scientific standpoint, has therefore been focused rather heavily upon the 10-15 percent of known mentally retarded who have organic involvement with established genetic and/or medical factors that are subject to prevention, correction, or ameliorization through the application of scientific methods.

From the standpoint of rehabilitation, or more correctly habilitation of those who have become the victims of minimal ability to learn, to utilize knowledge, or to adapt themselves to social demands, our greatest gains have been largely in two areas; namely, in the psychological assessment of potential trainability and social adaptation, and in the development of

educational techniques designed to provide the individual with all the training and experience his potential for learning and social adaptation will permit. While this form of progress is admittedly slow and very often arduous, there is evidence that we are moving in directions that are likely to increase the yield of retardates who do lead moderately independent, selfsatisfying, and effective lives. We shall consider this latter group, which represents the vast majority of our retarded population, at some length in this discussion.

Habilitation and the Retarded

Most retarded people are potentially capable of a great deal of independent behavior and can learn (albeit with varying degrees of difficulty) how to take care of their personal needs. It is our task in rehabilitation to properly prepare the retardate not only for successful work performance but to insure his transition to a satisfying life and acceptance within the social community. To accomplish this it has been essential to carry on a program of research focused primarily upon these aspects of the rehabilitation process.

In the United States, under the 1965 Amendments to the Vocational Rehabilitation Act there was recognition of the long-term procedures essential to effectively service individuals with mental retardation. This often necessitates a period for the appraisal of the potential for vocational rehabilitation that may extend up to 18 months. During this period, adequate assessment must be carried on within improved workshops designed to provide ample evidence not only of the trainability of the rehabilitant but also of his capacity to adapt to the social interrelationships essential to successfully holding a job as well as getting along satisfactorily with his fellow workers.

Thus, our research efforts have increasingly moved toward more careful pinpointing of the variety of problems faced by the retardate and in seeking more effective means of overcoming them. To accomplish these ends we have had to seek diagnostic instruments that place emphasis upon social factors which so often play a key role in determining whether or not vocational rehabilitation is likely to be successfully accomplished. These and similar diagnostic instruments used in association with proper

training techniques are designed to make more effective the delivery of rehabilitation services to retarded individuals. As a brief example, a test has been developed designed to measure employability. This instrument is based upon a theory of mental development and is designed to indicate the stage of mental growth of the retardate relative to his understanding of the vocational aspects of the job.

Still another example is the recent development of a diagnostic device designed to indicate specific elements within selected social situations with which the retardate is having social problems. Associated closely with this device is a training program designed to help the retarded person develop necessary insights in the area of social adaptability in which he has been shown to be deficient.

Rehabilitation of the mentally retarded requires careful evaluation of employment potential. Once employment potential has been established, it is then necessary to establish appropriate vocational goals. This calls for research leading to better understanding of job demands, particularly as rapid technological development produces changes that will affect the performance of the retarded worker. We must recognize that new jobs, in turn, demand innovative training methods. These must be developed, tested, and modified so as to provide for the training needs of the employable retarded. Since only a part of the problem in habilitating the retarded is concerned with skill training, it becomes equally important that we develop new and better ways for helping them achieve social adjustment. More often than not, it is this component which plays a predominant role in determining the actual ability of the person who is mentally retarded to get and hold a job. To solve this fundamental problem, we have sought improved methods of providing counseling and guidance in the area of work adaptability and adjustment. Every effort is made to use community work resources by the provision of transition facilities where training can be pursued while the trainee is being brought out of his restricted home or institutional environment into the broader human relationships of the community.

Along these lines, we have shown almost a tenfold increase during the past decade in the number of mentally retarded clients who have been habilitated or rehabilitated annually as a result of the application of techniques developed through demonstration projects involving on-the-job training or transitional workshop experience in which the trainee is prepared for the realistic demands for social adaptability as well as any special skills he may be required to possess.

An excellent example of what can be done is afforded us in the special program that was developed in order to place mentally retarded persons in Federal employment. Under the impetus of the leadership of President John F Kennedy, a highly successful program for the employment of mentally retarded persons by the Federal Government was initiated late in 1963. The Federal Civil Service Commission, working in close cooperation and with the advice of the then existing Vocational Rehabilitation Administration, established a special hiring authority for mentally retarded persons. This program has continued in effect for well over six years and the results have been worthy of our attention. A brief recapitulation of the outcomes may be interesting.

Written agreements were established between the Civil Service Commission and the Federal agencies designed to protect the interest of both the retarded persons and employing agencies. The agencies agreed to use the services of State VR Departments in carrying out the hiring authority. They were also asked to identify, with the help of rehabilitation officials, tasks considered suitable for retarded persons. The judgment of rehabilitation counselors was substituted for the usual testing procedures to determine employability. The counselor certified in writing that the retarded person had the ability to perform a given job, was physically qualified to handle it without hazard, and was socially competent to function in that particular work environment and during after-work hours. The hiring agency was also required to consult the counselor before separating an employee. This meant an employer need not keep an unsatisfactory employee. It also assured the retarded client that continued rehabilitation services would be available.

In this program over 2,800 placements have been made throughout the nation during the first 3 years (1964-66) and 5,210 by October of 1968. Over 100 different jobs in about 40 Federal agencies are now being performed by these retarded individuals. Thirty-one percent are white-collar, 69 percent blue-collar jobs. The mean IQ is 73, with one-third below 70 IQ and one-fifth above 79.

It is interesting to note, in passing, that promotions or job reclassifications were made in 40 percent of the cases, chiefly to higher grade levels, indicating greater job mobility for the retarded than originally thought possible. Once again we noted the previously reported observances that there appears to be little relationship between job performance and

such factors as IQ, grade levels completed in school, or reading skills. The two principal causes of failure were absenteeism and unacceptable social behavior. In addition, inability to perform job tasks was a common reason for involuntary separation but 62 percent employed between 1964 and 1966 were still on the job in 1968. This is remarkably good since the turnover rate for this group was only 38 percent during a 4-year period, which is considerably less than for others in comparable Civil Service jobs where the separation rate in FY 1967 was 33 percent for those in lower GS grades and over 50 percent in Wage Board Classification jobs.

The Problems That Remain to be Solved

Most of us like to talk about our successes. Unfortunately, while our experience has been most encouraging, in all honesty, one must admit that many problems related to the counseling, training, placement, and followup of the retarded still remain largely unsolved. Prominent among the problems which remain are: (1) the continuing need for psychosocial adjustment of the retardate in his later years (the adult and the aging retarded); (2) development of methods by which the habilitation gains may be maintained and extended; (3) the task of extending services to functionally retarded and environmentally disadvantaged groups in the slums, ghettos, and rural poor areas of our country; and (4) the habilitation of the severely or profoundly retarded who could do much more to maintain themselves in our society if we but knew how to prepare them for these demands.

Prominent among these less adequately treated problems are those of the urban community, the "inner city". What it does to the child and to the young men and women who emerge from childhood has been especially emphasized in the 1969 "Conference on Problems of Education of Children in the Inner City". It is the "Six-Hour Retarded Child" - the child who is "retarded from 9 to 3, 5 days a week, solely on the basis of an IQ score, without regard to his adaptive behavior, which may be exceptionally adaptive to the situation and community in which he lives" who is our prime concern today in meeting many of the rehabilitation problems of the retarded.

Our attack has been oriented along several lines. One study has been concerned with the many retarded individuals who upon discharge from institutions were found to be without a home or family to return to. Adjustment

to such a situation without the social and psychological support of a family was, of course, extremely difficult. Under the aegis of the Elwyn School, with support from SRS, a demonstration has been completed of a program designed to indicate how the older retardates without homes or families, but nevertheless considered good risks for discharge into the community, could be assisted in successfully accomplishing such a transition. The program consisted of predischarge evaluation, social and vocational remedial education, half-way house programs running concurrently with preindustrial exploratory work experience and job placement, arrangements planned and made for independent living in the community, and long-term followup to assist the retarded person in his solution of emergent problems. Perhaps the most significant contribution has been that of Heber and his colleagues who have been engaged in the investigation of a high-risk area located in Milwaukee, Wisconsin. He and his associates have carefully scrutinized the problems associated with the "Rehabilitation of Families at Risk for Mental Retardation". As a result of their continuing study it has become increasingly evident that a great deal of the mental retardation seen among the poor may be ecogenetic in contrast with the organogenic forms commonly found among the more economically secure and socially adequate families.

We are aware, and Heber's group have reinforced the observation, that many factors influence the life of the impoverished mother which may result in organic deficits. Such factors as absence of prenatal care, faulty diet preceding childbirth and after, trauma resulting to the neonate hardly account for the frequency of poor school performance, difficulties in training for and holding a job, and the social maladaptation of a sizeable segment of the impoverished. Unfortunately, all too often these results have led to overgeneralizations attributed to intellectual deficits from genetic rather than environmental factors, and to the even less supportable concepts of ethnic differences. Such findings are neither supported in fact nor warranted by the studies of Heber, et al.

Heber and his associates therefore raise two crucial questions which deserve continuing research. Their first question is: "What skills are crucial for the development of intelligence and do 'high risk' individuals lack these skills?" Their second question asks, "Have investigators met with success in stimulating these skills in 'high risk' children?" Thus far the answers to the first question are largely empirical and are based upon development of a child who can perform effectively on some form of standardized general intelligence test. This means, according to Heber, two fundamental skills must be present, namely: (1) adequate language skills to meet the demands of the tests; (2) sufficient motivation to

achieve success in performance of the tests and capability of being productive in a socially sensitive manner.

These two capacities are in themselves complex and deserve to be futher analyzed - but for the nonce serve as an operational approach. In quite realistic fashion, Heber has focused upon existing types of tests since they are the best that are available. Itwould be our hope that a time will come when better, more accurate, and psychologically more adequate instruments will be developed which are universal in their language implications and do not depend so heavily upon rather restricted middle-class language skills, and which include better measures of social adaptability. But this is another problem. We must work now with the best tools that are available. Heber and his group, in our judgment, are cutting a big swath in the jungle that hides the effect of poverty and other social and economic factors which are involved in the production of some forms of retardation.

Similarly, they are studying achievement motivation and the impact of the poverty environment. They have again called to our attention that the child from the middle-class home is likely to be much more strongly motivated to achieve. This is a common observation, but it is the factors associated with such motivational deficits that are our real concern. These have been explored by many investigators. The upshot of their investigation is that in the impoverished home, the mother especially tends to do those things that produce in the child an avoidance of independent action, selfassurance, and satisfaction with accomplishment. Let us clearly understand that this is not because of a mother's desire to make the child more dependent or less adequate. Rather it would appear to be closely related to the mother's own background, her preoccupation with getting her chores done, and the lack of time to devote to the individual child to insure that he will learn how to do things for himself and achieve success. In short, it is an ever-repeating cycle in which the mother cannot take the time to develop and encourage successful performance in her child. As a result the child seldom achieves success, seldom gets the reinforcement of reward (especially verbal reward), and every effort that he makes becomes meaningless or so restricted in meaning that it has little or no effect in preparing him for the demands of life.

It is our profound hope that out of these investigations will come an enlightened approach to the prevention of much environmental demage

to children and ultimately to the adult members of the inner city that prevent them from realizing their social and economic potential. Even when this cannot be fully achieved, we can anticipate an amelioration of the low-stimulus level of the maternal - child relationship that will make it possible to provide good educational, vocational, and social preparation for independent life as a first-class citizen in our society.

HANS TANGERUD, Institute for Educational Research,
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The Education of the Educable Mentally Retarded
- a couple of research strategies

Ladies and gentlemen. Mr. chairman.

I can think of a number of apologies that ought to be made before touching upon subject matter. In order to save time I shall only inform you that in case you expect me to read a paper on the education of the educable mentally retarded you are wrong.This is so because I said yes to the invitation to come and speak without knowing what I wanted to speak about. Besides I am very much confused about concepts like " intelligence" and"mental retardation" and even more so about sub-categories. You'll soon get an impression of that.Finally, what I want to talk about may happen to be of some interest to people who deal with children whom they categorize as mentally retarded.

What I shall do, then, is to present two types of research strategies which are thought to be important for the development of special education.

1. There is a need for task-oriented research

Up to the last years psychology has been to a large extent over-psychological. This means that psychologists have been prone to interpret behavior as caused by some characteristic of the responding person thereby neglecting the importance of the environment that he is responding to. Of course, myriads of psychologists deal with environments in a great number of ways. However, they do so most often on the basis of common sense or, if you dislike, personal idiosyncrasies because of lack of theory, classification systems, terminology and instruments which allow for professional understanding and handling of environments.

It seems to me that the failure of psychological theory to incorporate satisfactorily the many aspects of environments is more pronounced in capitalist than in socialist countries.

Within the broad field of cognition, learning, and instruction great efforts have been made to understand and measure characteristics of individuals, eg intelligence and ability structure, by deducing from responses given by a number of individuals to certain tasks. This kind of research strategy has probably led more often to interesting academic discussions than to good special education.

The teacher's job is entirely different from that of the psychologist (researcher or diagnostician) who tries to describe persons in terms of a few broad categories. The teacher is dealing with something much more intricate, ie in any one single moment of teaching he is trying to convey some minute idea in some concrete context to one or more pupils.

Even a teacher who is exceptionally well trained in psychology is bound to feel very much at a loss when it comes to the application of psychology simply because there is so little likeness between his conceptions of his pupils' I.Q.s and ability structures on one side and the tasks that he must create by thousands on the other side. The psychological categories being used to describe

persons are so broad, so abstract, and so removed from educational tasks that almost any attempt to deduce to teaching must be purely speculative as long as we have practically no psychological knowledge about tasks.

There has been some educational reaction against the dominant psychometric and differential kind of psychology. In 1960 Bruner stressed that effective learning in schools does not take place unless teaching by all means brings forth the underlying scientific structure of the subject matter. Even though this position can be backed up by pointing out that understanding improves memory, transfer, and flexibility of thinking, it is underpsychological because its relation to the difficulties involved in the grasping of ideas is superficial.

There is little doubt that many of the so-called scientific structures should be looked upon as very abstract concepts which can not be conveyed directly - at least not to all children. They can develop gradually in the individual child provided that he is given a set of distinct but related experiences that leads him most often through the formation of sub-concepts to more precise and abstract integration of meaning.

This is still not clearly different from the Bruner tradition. In order to establish a distinction the concept of subtraction can be used as a convenient example. If a person is involved with scientific structure he shall be inclined to look for mathematical structure or mathematical relations like considering subtraction as addition with negative numbers or as division into unlike groups. It has been stated that even the mentally retarded benefit from having such relations pointed out to them. I believe that this is right and accept the idea as valuable.

But we all know from experience with mentally retarded children that they do not behave like little scientists, ie they do not easily respond to underlying structures or enjoy purely intellectual satisfactions. This does not mean that they are conceived of as

having another kind of personality as compared to other children, but simply that they have such difficulties with the practicalities of daily life when trying to avoid danger and satisfy essential needs, that there is little left for intellectual luxury. When thinking they are predominantly relating themselves to life situations. Their concepts are, can, and, therefore, must be developed in close relationship to such situations.

This leads back to subtraction. Very often subtraction is taken to mean what goes on when somebody has something and part of it is taken away. This type of situation is entirely different from the one in which subtraction is a technique for finding differences. And the last type may be psychologically quite different from the one in which somebody tries to find out how much more he needs. There may also be a time dimension to subtraction that makes for psychological differences between tasks, ie that first having something and then taking part of it away may be different from a situation in which the normal chronological sequence has been distorted as for instance when the teacher asks "how many have you done since I left you?"

One way of being task oriented, then, is to search for psychologically meaningful frames of reference for the classification of tasks which are related to the same concept. This can only be achieved by the use of logical reasoning, minute observations, and empirical testing. If it is achieved, we have established what approaches a sound basis for the making of programs to teach the particular concept, ie that we know something about the different kinds of tasks to present in order to develop an abstract concept which is not too closely linked to concrete aspects of one type of task. As regards evaluation we know that a pupil who has fully developed the concept can be expected to solve a number of defined types of problems.

We may get to know something about the psychology of the development of one particular hierarchy of concepts by studying whether different kinds of tasks are mastered in anything similar to a fixed sequence. We can also try to find out if achievement in certain types of tasks can be more easily influenced by intensive training programs. This again means something to teaching.

It is my impression that we shall expect differences among tasks to occur on a number of dimensions varying with the concept involved. In my studies on children's counting I have found that counting varies as regards the purposes that counting can be used for: manipulations needed to handle objects while counting, stimulus qualities of objects to be counted, and the kinds of moves within the number system that are needed. With subtraction purpose and time may be dominant.

So far we have emphasized that which is common to all tasks within a certain category of tasks. This means that we have dealt with generalized ideas on what may be called a semi-concrete level simply because they are more easily understood when related to concrete situations than some of the abstract scientific concepts that some people try to convey directly to children.

Even such semi-concrete ideas have to be embedded in concrete set-ups in order to be presented as educational tasks. The teacher is badly in need of knowing how to present an idea so that it can be easily grasped by the children. In order to get some valuable information on this problem we must do studies in which we keep the idea constant and vary the set-up on a number of relevant dimensions.

If we think about comparative subtraction we may vary the set-up along the following dimensions:

1. numbers involved (size of numbers, size of difference, number or difference being 0)
2. measures involved (length, area, cubicles, weight, time, money, etc.)
3. kind of instruction involved (oral or written, complexity of sentence, number of repetitions)
4. teaching aids involved (objects, pictures, or no teaching aids, spatial factors, manipulation factors)
5. responses required (oral or written, number or sentence)

Of course, studies like this should not aim only at establishing the easiest possible context where the idea may be expressed without being distorted. Such studies may also be important because they make clear the differences between tasks within the same category. On this basis it is possible to develop a teaching program presenting relevant variations in order to develop and clarify the sub-concept, eg comparative subtraction.

I would like to mention just two more possibilities. If we vary the same dimension in the same manner across a number of tasks while keeping other factors constant, we may be able to decide if this variation means the same irrespective of kird of task. I have indications that this is not always the case. When I increased the number of objects to be counted in the same manner in three tasks the number of children performing correctly dropped much more with one than with the other two tasks. I am sorry to admit that controls were not quite satisfactory.

The last possibility is probably an impossibility. If we could control fairly well for all relevant dimensions of concrete set-ups across a number of tasks, we should get to know something about the relative difficulty involved in the grasping of different ideas - and nothing but the ideas.

To the degree that we succeed in establishing "task structures" we shall also have the possibility of relating task structure empirically to ability structure or personality structure and thereby contribute to close the gap between psychology and teaching and between theory and practice. Of course, task structure may also be meaningfully related to differences between handicapped and not handicapped children and between different groups of handicapped children. This may increase our understanding of the effects of specific deficits on cognitive development and learning.

Besides, task structure may be studied in relation to the social background of children. I have indications, but so far no conclusive evidence, that children coming from different social backgrounds but who have the same total score on the counting test have somewhat different score patterns, ie that children from working-class background succeed more often with manipulation items while children from academic and upper-middle class homes do better on items in which they are to deal with symbols alone. If this is so, there may be a need to differentiate teaching according to social background and, in addition, to reconsider the items selected for use in tests of intelligence.

2. There is a need for system-oriented research.

Sociologists have been able to demonstrate that social systems may have functions which bear little if any similarity to the expressed intentions of those who initiate, support, or are in charge of the particular system. Intentions may be idealistic, while the real functions are more or less unacceptable to those who treat and those who are subjected to treatment. There is a danger, then, that persons of good will working within a certain system neither feel a need for nor have the ability or opportunity to analyze the system in order to understand its functions.

There are at least two sufficiently strong reasons why we should be very much on the outlook for malfunctioning of the system of special education. (1) Special education usually resembles a fly's eye, consisting of a great number of parts supposed to work smoothly together. There are sub-systems for a great number of different groups of handicapped children. Some people diagnose and some teach. A number of professions as well as different administrations are involved. (2) Those who are supposed to be served by the system are not in the position to protest very efficiently if they are not served. They are usually not conceived of as important in relation to economy; most of their parents are not very effective members of pressure groups.

Several reasons may account for the fact that very little system-oriented research has been done. Of course, such research must often be expensive and time consuming. More important, however, is the fact that this kind of research very often results in conclusions which imply severe criticism of procedures, places, and persons, and thereby leads to public discussions, interferes with party politics, and creates a pressure upon all those responsible to change the system immediately. This creates a temptation for those who distribute money for research to assume a rather restrictive attitude towards that kind of research.

Since it gives me a good feeling to tell about my own ideas, you will have to excuse me for using as examples of this kind of research a series of srall studies that I planned to do with a group of students - and for which I got no money. The whole project was called "Relations between School Psychology and Special Education". The intention was to select one or a few related fields of special education.

The first aspect to be studied was the diagnoses made by school psychologists. This could be done because the school psychologists in our country for some time have been supposed to give some information on a questionnaire form to the Ministry of Education about each child who has been intensively studied. The intention was to see if anything similar to a relatively fixed pattern of diagnoses cccurred across districts or, if you like, whether school psychologists see different problems in comparable groups of children. Since most school psychology districts are served by one psychologist, personal biases could be expected to show up very clearly in the statistics.

By all means, I do not want to say that there is something suspicious about psychologists having different training and different preferences. However, diagnoses are not used only by the people making them. They are also handed over to other people who take decisions about placement or give treatment according to their best judgement and on the basis of the diagnosis. If diagnoses, then, vary more with the characteristics of psychologists than with characteristics of children, this probably means that the system for differential placement and treatment functions more or less arbitrarily.

The second aspect to be sutdied was the kind of advice given by school psychologists in the various districts. Nothing like an absolute correspondance between diagnosis and advice can be expected since advice also must be tied up with evaluations of

practical possibilities. Again, lack of clear correspondance gives ample opportunity for personal preferences to interfere. We therefore wanted to study whether there were great differences among districts and to what degree eventual differences could be explained from the different patterns of diagnosis. Another possibility was to keep diagnosis constant and then study differences between school psychology districts as to kinds of advice given.

In order to acquire an understanding of this relationship we also wanted to study the school psychologists' expressed criteria for giving advice in such and such a way. We planned to study the degree of difference between psychologists as well as the relationships between diagnosis, expressed criteria, and advice given.

When reporting to the Ministry of Education the school psychologists are supposed to give primary as well as secondary advice. Primary advice expresses the kind of placement and/or treatment that is considered the best possible alternative for the particular child. It is meant to be realistic as it refers to existing types of schools, institutions, or treatments. Secondary advice is even more realistic as it takes into consideration that there shall be a fairly good chance of getting a certain kind of placement or treatment for the child. As a third aspect of the study, therefore, we wanted to look at the relationship between primary and secondary advice. Great differences would indicate that a number of children do not get the treatment they need.

As a forth step we wanted to deal with actual placement. One way of doing this might be to study all pupils in relevant types of special classes within some districts in order to categorize them on some variables which may be meaningfully related to expressed criteria for advice about placement. Another possible approach would be to study children who had been to the school psychologist and who were thought to be in need of special education in order to see what had become of them in the school system. Such survey data should be seen

in relation to diagnosis and primary and secondary advice.

Again, one should not expect full correspondance, not even between actual placement and secondary advice which is meant to be very realistic. The main reason is that some pupils move within the special education system or in and out of that system because diagnosis has been changed and because they perform much better or much worse than expected. However, if differences are great, and especially if they vary systematically with diagnosis, there is good reason to look for administrative procedures which interfere with the school psychologists' evaluations.

I do not say that administration should have no power as regards placement and treatment. Administrative procedures may very well be distinguished by knowledge, experience, and wisdom. But it is important that this is so.

A fifth section of the planned project aimed at the study of special class teachers' role conceptions, ie what kind of children they think they have been educated to deal with, what kinds of teaching methods, equipment, and working conditions they think they are supposed to use and supposed to have or not use and not have, how they think they must act in order to comply with laws and informal regulations, and their hierarchy of preferences for various educational objectives. This might be done in such a way that role conceptions could be related to the expressed criteria of school psychologists. The idea was that differences between the two professions' views would indicate the amount of latent conflict between them, which, of course, might mean a lot for actual cooperation.

We were also concerned about the particular teacher's role conception and the characteristics of the children is his own class. If actual placement was very much at variance with the teacher's role conception it would probably imply great frustration and inefficient teaching.

The sixth part of the project needs only to be mentioned, namely as a study of the procedures and strategies which are actually being used in the cooperation between school psychologists and schools.

The seventh and last study in the series would probably have been more interesting. The main objective was to study the kind and amount of differentiated educational treatment in special classes. This is such a big task that we could only expect to do some preparatory work on a couple of relevant variables. If little or no differentiation takes place this may indicate that all diagnostic work and all planning for differentiated treatment which aims at something beyond that which is needed for differentiated placement do not contribute to the efficacy of special education. It would also be interesting to study relationships between differentiated treatment on one side and diagnosis or measured characteristics of pupils on the other side. If no clear positive correlations could be found this might mean that differentiated treatment may have functions other than educational ones, eg administrative or disciplinary functions.

I have used this somewhat vague description of a planned series of closely interrelated studies to illustrate the possibility that highly qualified people doing high quality jobs may not achieve very much when working within a distorted social system. The idea that something of this kind is actually going on is, probably, supported by the discouraging results obtained in studies on the efficacy of special education for the mentally retarded.

When such distortion occurs there is a need to search for causative factors which must be changed if the system is to be improved. Usually the following factors seem to be important:

1. Lack of personnel responsible for connections between subdivisions.
2. Lack of law,regulations,and clear administrative procedures.
3. Lack of knowledge.
4. The interference of some supposedly irrelevant power structure.

The last factor is probably the most important one and lack of personnel responsible for cooperation, lack of law, and even of knowledge may sometimes be understood as caused by some interfering power structure.

There is some reason to believe - we have no empirical evidence - that some parents form a power structure that interferes with the consistency of placement procedures ie that parents of high social class not only have a greater chance of getting their child into places where high quality treatment is given, but also that they manage rather often to get their child into schools or institutions wich are more acceptable according to the parents own values. When diagnosis is kept constant we may find that low class children go more often to special schools or classes for the mentally retarded while high class children go more often to schools or classes for the brain injured. Or, that low class children go to institutions for maladjusted (mean) children and those from high social class to treatment centers for nervous children. Or, that low class children go to special classes and high class children to reading clinics. Of course, all this may be studied empirically.

There is a danger that schoolpsychologists contribute to something of this kind by saying that very little can be accomplised without the cooperation of parents (and that is true) and, therefore, parents wishes should be heavily stressed when decision about placement is taken.

If this is actually happening it probably implies:
1. that there is a class structure within special education,
2. that high class children do not allways go to places where they can have the treatment they really need, and
3. that high class children block treatment possibilities in some kinds of schoolsso that low class children rightly referred do not get in.

We may get some indications about an eventual class structure within special education by just analyzing budgets to see how much money is being used per child per year in comparable branches of special education.

Another power interfering with special education may stem from a great many people's need to protect themselves against deviation. If this power is sufficiently strong there is a need for some organization to take on segregative functions. This may happen t special education , in which case should expect the following to happen:

1. that more money and better qualified people are used for placement than for treatment,
2. that there is little concern about distortion of special education as a social system or about ineffeciency of teaching,
3. that there is practically no chance for a child to be transferred from special class to ordinary class, and
4. that former pupils of special classes are not often fully assimilated into society.

A third kind of possible interfering power structure consists of indiviuals and professions working within the system. Distortion may be caused by somebody's need to protect themselves and their proffession, to seek status and prestige , and to rule other people in the system.

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We have come close to that which should have been the third main point of this paper if time had allowed for it, namely that <u>there is a need for society - oriented research</u>. This is relevant to special education because society may be such that even efficient special education , as measured by special class pupils' school attainments as compared to those of similar pupils in ordinary classes, leads to next to nothing. Is it worthwhile to impose the strains of special education upon children if we cannot increase their status in society? And if their status is

increased,does that mean that somebody else's status must decrease? Or society may be such that we need a kind of education which bears little similarity to the education given to more successfull pupils.

I would like to mention just two problems that we need to know more about. The first is related to the task - oriented approach. More and more all important decisions in society are taken by so - called experts. What does this mean as regards the mentally retarded person's chances of understanding his environement and getting pleasure from it? If we want the handicapped person to be a member of society we shall perhaps have to write official documents in another kind of language, or make traffic signs less symbolic in character, or make another kind of sewing machines.

The other problem is the possible function of handicapped people in relation to the ecconomic system by constituting a marginal working power resource. If it is shown that the ecconomic systems leads to periodical unemployment and underpayment of handicapped people, something should be done about it.

This leads to the conclusion, then, that we have an obligation to be involved with politics as well as teaching if we want to achieve something for handicapped people. If we are involved with our own careers or with being accepted by everybody we shall teach and by no means be involved with politics.

Group 7 "The Education of the Educable Mentally Retarded"

The discussion centered in the pre-requisites needed to be taken into consideration before launching out the programming in special education - be it in setting up of programs of training of personnel and teaching models for children with retarded mental development.

The argument centered around two main outlooks, the first taking into account the intellectual, psychological aspect, the second tended to learn more on the social system for which we are trying to build programs.

ELIAS KATZ, Ph.D., Assistant Director:

Evaluating the Mentally Retarded for Special Education and Rehabilitation Programs

Mr. Chairman, Honored Colleagues, Ladies and Gentlemen:

Today there are many, young and old, who are questioning the very foundations of our cherished beliefs. They challenge the individual's and society's objectives, the methods for achieving these objectives, and the results obtained.

This morning I will add my questions on the subject of evaluating the mentally retarded for special education and rehabilitation programs. I believe that an inquiring attitude should be extended not only to evaluation but to all aspects of mental retardation, and to all our current approaches to dealing with the enormous and complex problem of mental retardation in our society.

I am indeed grateful for the privilege and the opportunity provided before this distinguished forum, to ask questions in an area where too few have been asked and where for too long we have taken established answers for granted. I believe that some of these answers not only rest on doubtful assumptions, but in many instances the solutions have worked against the best interests of the mentally retarded. I will further preface my remarks by specifying that my training and experience with the mentally retarded and other handicapped persons are centered in the United States, and I cannot generalize beyond the bounds of my country.

Since we are today directing our attention to evaluating the mentally retarded for special education and rehabilitation programs, I should like to discuss several questions relating to this subject:

What is meant by "evaluate"?

Who are the "mentally retarded"?

What are "special education and rehabilitation programs"?

Evaluation

The dictionary definition of "evaluate" which I am using in this paper is "to appraise carefully." My interpretation of "appraising carefully" is encompassed in the term "comprehensive evaluation," which I consider to be an extensive evaluation at periodic intervals covering an individual's total personal, social, medical, psychological, educational, vocational functioning.

At the outset I would like to ask, how carefully are we appraising the mentally retarded? How well have we evaluated their ability in such complex areas as becoming adequate members of a family, or participating in leisure time activities, or engaging in gainful employment? Despite the fact that hundreds of psychological and educational tests are published each year, bearing on some aspect of evaluation, few if any are designed to give answers to these complex questions. What tests do we have for comprehensively evaluating the individual's success or failure as a human being in his environment?

Who should be evaluating the mentally retarded for special education and rehabilitation programs? In the past we have relied heavily on the expertise of individual professionals such as a psychologist or a classroom teacher. Today we know that comprehensive evaluation demands the skills of trained professionals and paraprofessionals working together as a team.

Despite widespread agreement that comprehensive evaluation of the mentally retarded is necessary, there are few programs which conduct such evaluations. Why? It is because there are so few trained professionals? Is it because we consider comprehensive evaluation as an unimportant aspect of special education and rehabilitation programs? Is society ready and willing to spend the time and money to carry out comprehensive evaluations?

The Mentally Retarded

I am in general agreement with the American Association on Mental Deficiency's definition that: "mental retardation refers to subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behavior." (Heber, 1958, 1961)

To me the American Association on Mental Deficiency definition has the advantage of providing a broader, more inclusive concept of mental retardation. For a long time we have tended to consider as "mentally retarded" only those who manifested "mental deficiency," or "retarded intellectual development," reflected in a low I.Q. test score. Impairment in adaptive behavior was not considered essential for "mental retardation." Adaptive behavior refers primarily to the effectiveness of the individual in adapting to the educational, social, or vocational demands of his environment. Impaired adaptive behavior may be manifested by slow maturation, learning difficulties, social inadequacy, or vocational deficiency.

In addition to providing a broader concept the American Association on Mental Deficiency definition gives us a more flexible approach. I know a man in his 40's who is employed in a large business in San Francisco. As a child he attended special education classes for the mentally retarded. After he completed his schooling he held different jobs, failing in each. About 10 years ago he applied for a position as a janitor's helper in a company with a sympathetic personnel manager. Over the years he worked himself up to be a mail clerk. He earns enough to take care of his needs, he drives his own car, and he is engaged to be married to a woman who was his classmate in special classes. Is he "mentally retarded" or is he not?

According to the American Association on Mental Deficiency definition he was "mentally retarded" as a child. When he entered school he performed poorly and could not keep up with children his own age. He was evaluated by a psychologist and was found to have a low I.Q. test score. On the basis of his score he was placed in a special education class for mentally retarded children, since he needed the help provided in such a class in order to function in the school environment.

Now let us look at him as an adult. If he were tested today he would still have a low I.Q. test score. However, he needs no help from outside agencies and gets along well in his present environment. His "adaptive behavior" is not impaired, and if his adaptive behavior is not impaired, regardless of his low I.Q. test score he is not now "mentally retarded."

What about the negative connotations of the low I.Q. test score? The I.Q. test score is only a statistic based on a numerical concept of a range from high score to low score. In the minds of the general public, including many professionals and paraprofessionals, all persons at the low end of the continuum of intelligence are considered "mentally retarded" and therefore inadequate. Low I.Q. is equated with mental retardation and inferiority. This has firmly established and reinforced the stereotype that these persons are of little redeeming social, cultural, and economic value in the scheme of things. Why should one dimension of an individual's functioning be extended to the total personality? Is it not time that we develop a more appropriate and constructive way of thinking about these handicapped people in our midst? Should we not stress their potentials and their achievements, rather than their disabilities and failures?

I will not labor my point. To me the American Association on Mental Deficiency definition has raised many questions about the permanency of mental retardation. It has opened up hopeful vistas as to the possibility of movement in an individual from a state being "mental retarded" in one setting or at one stage of his life to a state of being "non-mentally retarded," depending on how well he adapts to his environment.

Evaluation of the mentally retarded for special education and rehabilitation programs should not proceed in a vacuum. Much depends on our perceptions of the individual we are evaluating.

There are of course many conceptual models of the mentally retarded. Do we see him as a system of responses to stimuli,.with definable inputs, a processing mechanism in the brain, and definable outputs in behavior? Do we see him as a person with unconscious needs which demand fulfillment, with complex feelings and emotions, experiencing love, hate, frustration, joy, and sorrow? Do we see him as a member of a group and influenced by the group's social and cultural patterns? Do we see him as a rigid personality or is he flexible and able to be stimulated by his environment and our expectations?

I am reminded of a vivid experience which has had considerable impact on my thinking about the mentally retarded. This concerns the role of expectations on the performance of a group of mentally retarded young adults being evaluated in a sheltered workshop I directed a few years ago. (Katz, 1961, 1965) For some time our retarded clients carried on their activities in an isolated building. The benign and tolerant staff placed few demands on their productivity. Then the program was moved bodily to an industrial neighborhood. The staff and the trainees were exposed to

more realistic working conditions. Here the expectations were closer to the requirements of employment in the competitive labor market. Suddenly there was a great change in many of the clients as well as in the attitudes of the staff. There were dramatic improvements in personal grooming, social control, and actual productivity. I have often questioned myself about this experience. Was it because our previous low expectations for our retarded clients had changed? Was it because they felt the need to respond to the change in atmosphere in the new setting?

In evaluating these mentally retarded young adults over a period of time, the staff and I were deeply impressed not only by the sudden changes but by the maintenance of the improved level of functioning. We agreed that we had underestimated the potentials for growth in our clients. Our conceptual model was inadequate to cover the realities of the people we were serving. How often have we erred in our evaluations? How far could the mentally retarded move under a system of higher expectations, greater challenge, and more dynamic motivation?

Special Education Programs

What are the special education programs for which we are evaluating the mentally retarded? For present purposes I will limit "special education programs" to special classes for children who are identified as "mentally retarded." In the United States there are many kinds of special classes, and wide differences are found from state to state. Generally speaking, we find two levels of special classes: for the Educable Mentally Retarded (EMR), and for the Trainable Mentally Retarded (TMR). The line of demarcation between these levels, and the "normal" level varies from community to community, but usually is on the basis of intelligence test scores.

When children are evaluated, and are found to have low intelligence test scores, they may be placed in a class for Educable Mentally Retarded children. The special education program for such a child should have as its goals to help the child master basic academic skills, to develop social and emotional competency, and to be economically self-sufficient as an adult. (Guidelines, 1968) How successful is their education in helping them attain these goals?

Similarly if children are evaluated and found to have intelligence test scores too low for the Educable Mentally Retarded classes, they may be placed in a class for Trainable Mentally Retarded children. The special education program for such children will have as its goals to help them function within the shelter of their homes or other sheltered settings under supervision. How successful is their education?

What if a child is evaluated and found to be so low on intelligence tests that it is believed he cannot profit from admission even to a Trainable Mentally Retarded class? There are few provisions made to meet the educational needs of such severely handicapped children. In many communities, the only alternative has been to send the child to a state institution for the mentally retarded, or to keep him at home without any training. Fortunately in a few states there has been emerging in the past few years special classes for these severely retarded children, altho there is great variation in the educational objectives and methods in such programs.

While the above is an oversimplified description of our special education programs, many questions come to mind in relation to evaluating children for these programs.

Today there is a widespread belief that early identification of the mentally retarded is of the utmost importance to the present and future functioning of the individual. It is felt by many that if the child is

evaluated early enough and found to be "mentally retarded" appropriate special education programs can be provided to meet his special needs. This feeling has been responsible for extending the special education programs to ever lower age levels, so that nowadays we find special education classes for the mentally retarded being established as low as three years and younger. Admission to these classes is usually accomplished by an evaluation based on psychological testing.

My question here is how can we be sure that evaluation of intelligence by existing intelligence tests at very early ages provides us with adequate knowledge of the child's needs, or of his potentials for growth?

I am in favor of evaluating <u>all</u> young children, and on the basis of evaluation providing the necessary remedial training or other services to help them achieve their potentials. What I <u>am</u> protesting is the labeling of young children as "mentally retarded." Do we possess adequate evaluation skills? Should we not be exercising great restraint in arriving at such determinations, especially since we have so often been proven wrong in our assessment?

Please do not misunderstand me. A well-standardized individual intelligence test, administered, scored, and interpreted by a well-trained psychologist under ideal conditions, should provide a reliable I.Q. test score for middle-class white children.

I do have two major questions about these I.Q. test scores. First I question what the I.Q. test score tells us about the whole child in his social and cultural environment. It might tell us a little about how rapidly he can learn academic subjects in our school systems, altho even here it has limited utility. The I.Q. score does not tell us about

his emotional security, his social adjustment, his creative ability, his ability to live a useful and productive life. It does not tell us about his health, happiness, or his ability to earn a living.

And second, I believe existing intelligence tests are biased against black, Mexican-American, and other minority groups. To what degree do the I.Q. test scores reflect the recent years of welfare dependency, socioeconomic deprivation, the stigma of prejudice, and malnutrition, that has been the lot of our minority groups? Yet, these children are being placed in special classes on the basis of these tests!

Very recently in the United States, voices are being raised to question the discriminatory character of evaluation and placement of children in special education programs. The situation is as follows: large numbers of children from low-income families, living in socio-economically deprived neighborhoods are black, Mexican-American, Puerto Rican, or from other minority groups. These children are evaluated by available tests, are found to be showing "retarded intellectual development," usually because of low intelligence test scores, and are placed in special education programs. The number of children from minority groups placed in these special classes for the mentally retarded far exceeds the proportion of these groups in the population.

As a consequence leaders of these minority groups and others are raising questions as to the validity of the evaluation process. They are concerned that evaluating these children and stigmatizing them as "mentally retarded" does them a disservice so far as their self-image as responsible, productive and participating members of the community is concerned. Some have gone so far as to demand the total abolition of all evaluation procedures, and the elimination of all special education programs, since they believe

that these programs reinforce already powerful discrimination and segregation patterns. We need much more research in this area to help us deal with these questions.

An interesting development recently took place in the San Francisco public schools which is particularly relevant to my point. A study of school records indicated that about 25% of the children in special classes for the mentally retarded in some neighborhoods were from Mexican-American families even though Mexican-American families constituted a smaller percentage of the local population. These children had been examined with the Stanford-Binet Intelligence Scale or the Wechsler Intelligence Scale for Children, and had also been found to be slow learners. After considerable community protest the children were retested using a Spanish translation of the intelligence test. It was found that their intelligence test scores were considerably higher than first reported. Many were then transferred to regular classes. It was generally acknowledged that they were not "mentally retarded," did not belong in special classes, but they needed help owing to language and cultural differences.

This incident occurred in relation to a specific minority group in a specific community. Is it not probable that a similar error exists for many minority groups, and for socio-culturally deprived segments of our population? What adverse effects have evaluation and placement had on the children who should not have been in special classes in the first place?

Another question has to do with the impact of special education programs on the self-image of the mentally retarded children attending them and on the attitudes of their parents and neighbors. For the most part the children in Educable Mentally Retarded classes are physically separated from the other children in the same school altho they may be permitted to mingle

with normal children at times during the school day. Usually children in the Trainable Mentally Retarded classes are housed in separate buildings with little contact with normal children during school hours.

What justification is there for separating these children from their peers? We know how cruel children can be to any child in a group who deviates from the others. Often the retarded children are shunned, called "stupid," "dumb," or other opprobrious epithets or stigmatized in other ways. To what degree does separation of children into special education programs reinforce their feelings of inadequacy? How can children in special classes learn to get along with normal children after school hours if they are separated most of the day? In the United States the law of the land is that we can achieve our national goals only if we end racial segregation. For some years we have been moving in this direction. Why do we move in the direction of intellectual segregation in our schools? Segregation is segregation, whether practiced with minority, ethnic or racial groups, or with the mentally retarded.

A question which has not as yet been answered is how effective are the special education programs? How well do they succeed in achieving their goals? This is not the time or place to develop a treatise on the subject of program evaluation of the effectiveness of special education. (Roberts, et. al., 1968) Suffice it to say that up to the present time we have had no definitive longitudinal research studies which have followed up large numbers of mentally retarded persons from their early admission to special education programs, to adulthood. We have not engaged in large-scale research investigations to compare the life careers of mentally retarded children with the same intellectual, socio-economic, cultural and physical characteristics, half of whom were provided with special education programs

and half of whom were provided with the normal classroom programs. Under these circumstances how can we be sure that special education programs are more effective than no special education programs for the mentally retarded child? And if we have no firm evidence that special education programs are more effective than no special education programs why should we be evaluating children for the special education programs at all? Should we perhaps be directing some of our efforts to evaluating special education programs themselves, to determine whether they should be retained, abolished, or modified?

Rehabilitation Programs

For present purposes I will use the term "rehabilitation programs" to cover a broad spectrum of public and private facilities and services for mentally retarded adults: sheltered workshops, activity centers, vocational rehabilitation services, and joint school-rehabilitation programs.

Sheltered Workshops

In the United States a sheltered workshop has been defined rather ideally as: "a work-oriented rehabilitation facility, with a controlled working environment and individual vocational goals, which utilizes work experience and related services for assisting the handicapped person to progress toward normal living and a productive work status." (National Association of Sheltered Workshops, 1966) We have about 2,000 sheltered workshops which vary greatly in size, staff, and program. They serve only 50,000 to 60,000 handicapped adults, about half of whom are mentally retarded - the others being handicapped in other ways.

It must be emphasized that a large percentage of these clients may never move out of the sheltered workshop. They remain in this setting indefinitely. This has restricted admissions. The growth in the number of new sheltered workshops has not kept pace with the need.

Could not the sheltered workshop in addition to its present role, have another important function - comprehensive evaluation? Could not the realistic work setting, the opportunity to control and vary such factors as the quality and quantity of supervision, the rate of client productivity, and the types of work provided, be more effectively used to provide ongoing evaluation of progress in personal and social development, in creativity, as well as in vocational competency?

Most of the present sheltered workshops have adopted an organizational model based on a small manufacturing enterprise. The program is limited to a factory-like set-up in which performance in packaging, stapling, sorting, wrapping and other simple tasks is evaluated. There has been little attempt to evaluate the mentally retarded in other areas and for other types of work in which they may be more competent. For example, a retarded woman who may find it impossible to sit at a work-bench and do stapling, may prove to be a wonderful assistant to a kindergarten teacher. Several retarded men who may fall asleep sorting screws, may work together efficiently as a team keeping a public park clean and well-tended.

Activity Centers

What distinguishes activity centers from sheltered workshops are the differences in clients and the types of activities in which they engage. In the activity centers the mentally retarded adults are usually more

severely mentally and physically handicapped. The program is more socially and recreationally oriented, as contrasted to being vocationally oriented in the sheltered workshops.

There are very few activity centers at present, altho there is a tremendous need for them. They can be most useful for making it possible to keep large numbers of retarded adults from being committed to state institutions for the mentally retarded, as well as to return to the community many now confined in state institutions. However we must exercise vigilance that when we establish activity centers we maintain a rehabilitative orientation, with on-going evaluation of each client, and with close ties with normal community life. We must strive to avoid establishing another custodial and "baby-sitting" institution in the community.

Vocational Rehabilitation Services

I should like to distinguish between vocational rehabilitation services and sheltered workshops. Vocational rehabilitation services have been characterized as "a combination of services provided to a physically or mentally disabled person, as needed, to fit him for employment and productive useful living." (U.S. Department of Health, Education, and Welfare, 1965) "Employment and productive useful living" has usually been interpreted as being successfully employed in the competitive labor market. Vocational rehabilitation services, which may include evaluation, counseling, training, and job placement, are provided by vocational rehabilitation counselors in state vocational rehabilitation agencies. In the process of developing a vocational rehabilitation plan for a client, a counselor may place him for evaluation or training in a facility such as a sheltered workshop.

I would like to question the overwhelming emphasis in vocational rehabilitation services on vocational competence and productivity. This has meant a heavy concentration on preparation for employment.

It is of some interest that the Vocational Rehabilitation Amendments of 1965 specifically provided for comprehensive evaluation of the mentally retarded. (U.S. Department of Health, Education, and Welfare, 1965) Despite their liberality, these provisions were not all-inclusive, since they were concerned only with vocational potential. This emphasis has excluded from any evaluation as well as from any other services those who are not feasible for employment in the competitive labor market. Large numbers of more severely retarded adults have needs for comprehensive evaluation and services which are largely ignored when there is an excessive concern with ultimate job placement. Why do we discriminate against our more severely handicapped adults? Should we not make appropriate provisions to meet their needs? Should not comprehensive evaluation be made available to all retarded adults regardless of vocational potential?

Cooperative School-Rehabilitation Programs

Finally I should like to refer to a recent exciting development in a few communities, the joint, cooperative school-rehabilitation programs. This is a cooperative effort by the school staff and the vocational rehabilitation counselor (joined if possible by the parents) designed to provide a realistic work experience for the adolescent during his last year or two of schooling. During this crucial period the adolescent is exposed to progressively more demanding assignments on and off the school campus, while simultaneously completing his required education. Actual work

experiences provide the basis for much of the academic studies in class. By the time the youth graduates from school, he should be better prepared to get along well in his social environment, and to meet the demands of the world of work.

Why is there such an insignificant number of such programs? Why are we not expanding them rapidly? Why should we not include evaluation and training in recreational and leisure time activities in these programs?

In conclusion we must speak honestly of the inadequacy of evaluation of the mentally retarded. We must question each step we take and challenge easy solutions. We cannot take for granted that what is established is necessarily good. We must make an all-out effort to demonstrate that evaluation is meaningful in assisting the mentally retarded to become valuable and productive members of our society.

I am looking forward with anticipation to this afternoon's discussions. Thank you.

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Lennart Wessman, Inspector of Special Schools, National Board of Education, Stockholm, Sweden:

Organization of Special Education in Sweden

The need for special education depends greatly on the organization of the regular school system. If the education in the ordinary school was good enough for the handicapped pupil there was no need of special education.

Compulsory school

In Sweden, compulsory attendance at school is for nine years, beginning when a child is seven years of age. Special instruction was first begun about the middle of the nineteenth century with certain special schools, and has been developed successively. At present there are the following facilities for handicapped pupils.

a) special auxiliary teaching
b) separate special teaching
c) special classes in ordinary schools
d) special schools
(Fig. 1)

Most of the children of course are taught in an ordinary class. By individualized teaching in the ordinary class it is possible to reach the individual pupil, even if he has to struggle with certain difficulties by reason of his handicap. At the Junior level of the 9-year compulsory school, every class teacher has available two hours a week that he can devote to special auxiliary teaching. During these periods he can, for instance, instruct individually or in groups pupils who are falling behind in their work or who are generally immature or late developers.

The separate special teaching is the help for the slightly handicapped child in an ordinary class in an ordinary school. A single child or a couple of children can get this supporting training 2 - 5 hours a week. Separate special teaching should not involve a burden over and above the pupil's regular work, but should be given instead of the ordinary class-room instruction. When a pupil cannot handle his situation with the help of individualization or separate special instruction, then it

is important both for the child and for the school that it should be possible to place him in a special class. Here the pupil will be offered specially adjusted study schedules and special functional training. There are special classes for the different kinds of handicap.

Most of the gravest handicapped pupils we so far transfer to a special school organization for blind, deaf, physically handicapped or mentally retarded pupils. These special schools have all the pedagogical means available for educating the different pupils.

The total number of pupils in the nine-year comprehensive compulsory school is about 900 000. Of these about 100 000 receive special instruction in the form of separate special teaching. Most of these pupils have difficulty with reading (Fig. 2).

About 40 000 pupils are taught in special classes at ordinary schools. Over 50 per cent of these are slow learners (Fig. 3).

The number of pupils attending special schools is about 4 000. Of these some 3 000 are mentally retarded (Fig. 4).

Special schools for deaf, blind and gravely physically handicapped pupils are as a rule boarding schools. About 50 per cent of the mentally retarded pupils at special schools also go to boarding schools. All other special instruction is given in day schools.

Vocational schools

All the above-mentioned arrangements for pupils of compulsory school attendance age are also available to young people attending voluntary secondary schools and vocational training schools. For the mentally retarded the vocational education is compulsory and the vocational schools has some 1 000 pupils.

There is also a comprehensive programme of vocational guidance, in order to help them to adjust themselves to society, and to inform society about the needs of handicapped people, but also about their possibilities of living in society.

Pre-school

Education at kindergarten level is voluntary, but the parents of a handicapped child have the right to send their child to a kindergarten or getting help from a pre-school consultant. The work of the consultant consists in guiding the parents to their own work with the child,

instruction on how to treat the child, help in finding toys and material to occupy the child, advice on medical contacts, placing the child in kindergarten and subsequently in school.

Development

Current development of special instruction in Sweden is characterized by:

(1) The number of special classes for slow learners and pupils with retarded maturity is being reduced, while
(2) the number of pupils taking special lessons is being increased.
(3) Independent special schools are being replaced by special classes in ordinary schools.

This development is being made possible by (a) the gradual introduction of a new form of school, (b) society becoming more sympathetic towards handicapped people than before.

The conventional school makes certain demands on pupils if they are to participate in the instruction. The scale of marks is regarded as absolute, and passes are required for promotion to a higher class. Such standards are rather easy to maintain in a voluntary school. In a compulsory school, however, great problems arise with pupils who do not satisfy the demands made on them by the school.

Intellectually backward pupils may attend several classes for two or more years each until they have reached the age at which they may leave school, an arrangement which is not satisfactory for the pupils, however. Children gravely visually handicapped and with serious hearing defects or other kinds of physical handicap cannot be taught satisfactorily however long they may remain in one class. Special instruction in special schools or classes has therefore first been organized for physically handicapped pupils, later on for mentally handicapped.

Thus there are two contributory reasons for the organization of special instruction for weak pupils:

(I) Instruction is compulsory or very desirable.
(II) Some pupils cannot satisfy the demands made by the school.

During recent years, a new situation - new in principle, that is - has arisen in Sweden with the new system of education established by Parliament in 1962. The main feature of this new system may be expressed

in a pedagogical slogan, "Pupils first!". Thus the aim is to give each pupil individual instruction which encourages his all-round development, and which is adapted to his aptitudes. This means that methods of work in the ordinary school are becoming more like those formerly considered characteristic of special instruction. It can no longer be said, therefore, that a pupil cannot satisfy the demands made by the school. On the contrary it is the school that shall satisfy the demands of the pupil. This new way of looking at things is manifested directly in the ordinary school by the abolition of the pass-fail concept, and by the rule that pupils shall, as a rule, be promoted to higher classes.

For the slightly and moderately handicapped pupils, this means a changed view of the school, in that special instruction can be given to a great extent within the framework of an ordinary class. This is especially true when special instruction means doing the same things as in ordinary instruction, but at a lower speed and in less detail, that is to say, mainly classes for slow learners and pupils with retarded maturity. It should be possible in the future, to organize special instruction for these pupils, in the form of special lessons in certain subjects. Instruction in special classes should be resorted to only when instruction demands technical arrangements that are difficult to apply in ordinary instruction, or when teaching must be carried on according to curricula or programmes quite different from instruction in ordinary classes. The former refers to pupils who are seriously visually handicapped, hard of hearing or gravely handicapped in their movements, and the latter to those mentally retarded.

For pedagogical reasons we thus need special classes for some pupils. But we do not need special schools. It is not necessary to gather the special classes in separate schools. All the provisions you may have in a special school you can as well arrange in special classes in an ordinary school. Are there any other reasons - than pedagogical - for arranging a special school? Is it necessary to segregate handicapped pupils to separate schools?

Our public opinion just now is very much concerned with these questions and in a very positive way. It is no more a question of either over-protecting handicapped children or trying to separate them from other children. And it is definitely not a question any longer of trying to make all provisions and measures for this group of children as little expensive as possible. We belive that the increasingly understanding

attitude of society to handicapped people now makes it possible to teach even gravely handicapped pupils in special classes at ordinary schools.

Planning for Mentally Retarded

A new Act about services for the retarded took effect in 1968. It provides for a much more comprehensive range of services than before. The County Concils are the responsible authorities. They have now been required to arrange pedagogic activities for all mentally retarded children including training of those formerly considered "non educable" and individual education of those unable to attend classes. The new school system that covers all mentally retarded is shown in fig. 5.

The majority of counties at present have one large boarding school and a number of small day classes or schools. Planning in accordance with the new Act will mean organizing units of appropriate size in which activities will be divided up into:

a) living activities and

b) school activities.

All new buildings for living activities should be mixed with the built quartes of the town and the units not bigger than 5 - 6 pupils. Also the care homes ought to be small units in the town or at least small units within the institution.

As I have already mentioned there seems to be no reason any longer for segregated schools for handicapped pupils. Consequently attempts now are being made to integrate all the pupils we still have in separate special schools to special classes in ordinary schools. Planning according to the new system is shown in fig. 6.

In the past we have over protected the mentally handicapped in school and in living. And we have also protected society from the handicapped. When we now try to integrate them we find, often to our surprise, a very positive attitude from society to accept them as they are with their handicap.

Of course there are mentally retarded children who we must not or cannot force into society today. It would be inhuman to do so. But the most severely stricken among the retarded should not, as had been the case until now, be the group that forms the previsions for the majority.

Figure 1

Compulsory school

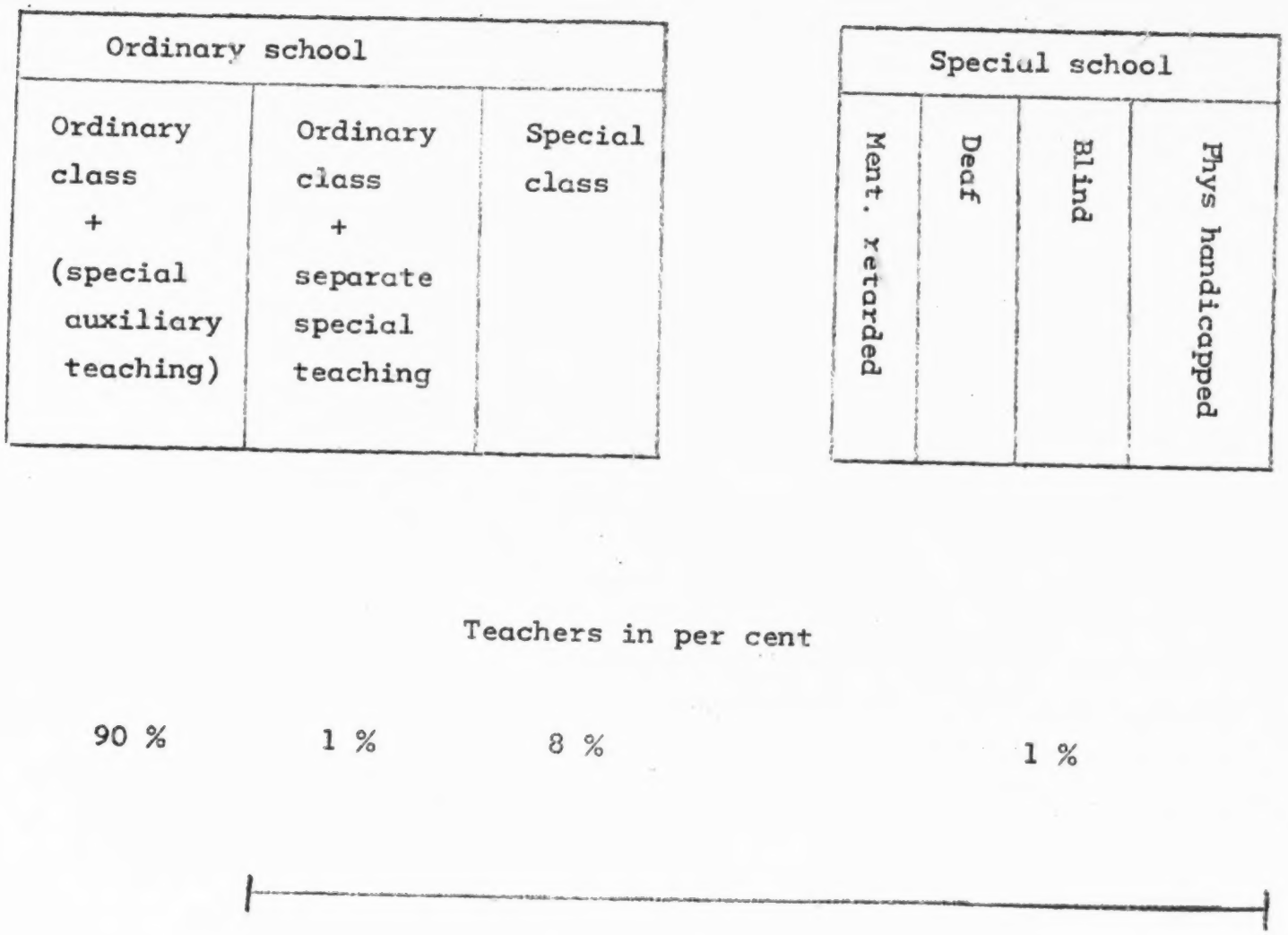

Figure 2
Pupils in
Separate special teaching

Slow learners	18 000
Retarded maturety	5 000
Reading disorders	56 000
Speech difficulties	20 000
Emotionally disturbed	8 000
Hearing impaired	500
Partially sighted	200
Others	6 000
Total	113 700

Figure 3
Pupils in
Special classes

Mentally retarded	3 700
Slow learners	23 200
Retarded maturety	5 100
Reading disorders	5 300
Emotionally disturbed	700
Hearing imparied and Deaf	700
Partially sighted and Blind	100
Physically handicapped	400
Others	100
Total	39 300

Figure 4
Pupils in
Special schools

Mentally retarded	3 000
Emotionally disturbed	300
Deaf	400
Blind	100
Physically handicapped	200
Total	4 000

Fig 5

Education of Mentally Retarded

<table>
<tr><td rowspan="3">Education at home
at hospital
etc
individually
or in group</td><td colspan="2">Education at a school</td><td rowspan="3">Age of
pupil</td></tr>
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<tr><td>training
school</td><td>school
proper</td></tr>
<tr><td></td><td>vocational
training</td><td>vocational
education</td><td>7 year

17 year

21
(23) year</td></tr>
<tr><td>therapy</td><td colspan="2">cheltered
work</td><td>ordinary
work</td></tr>
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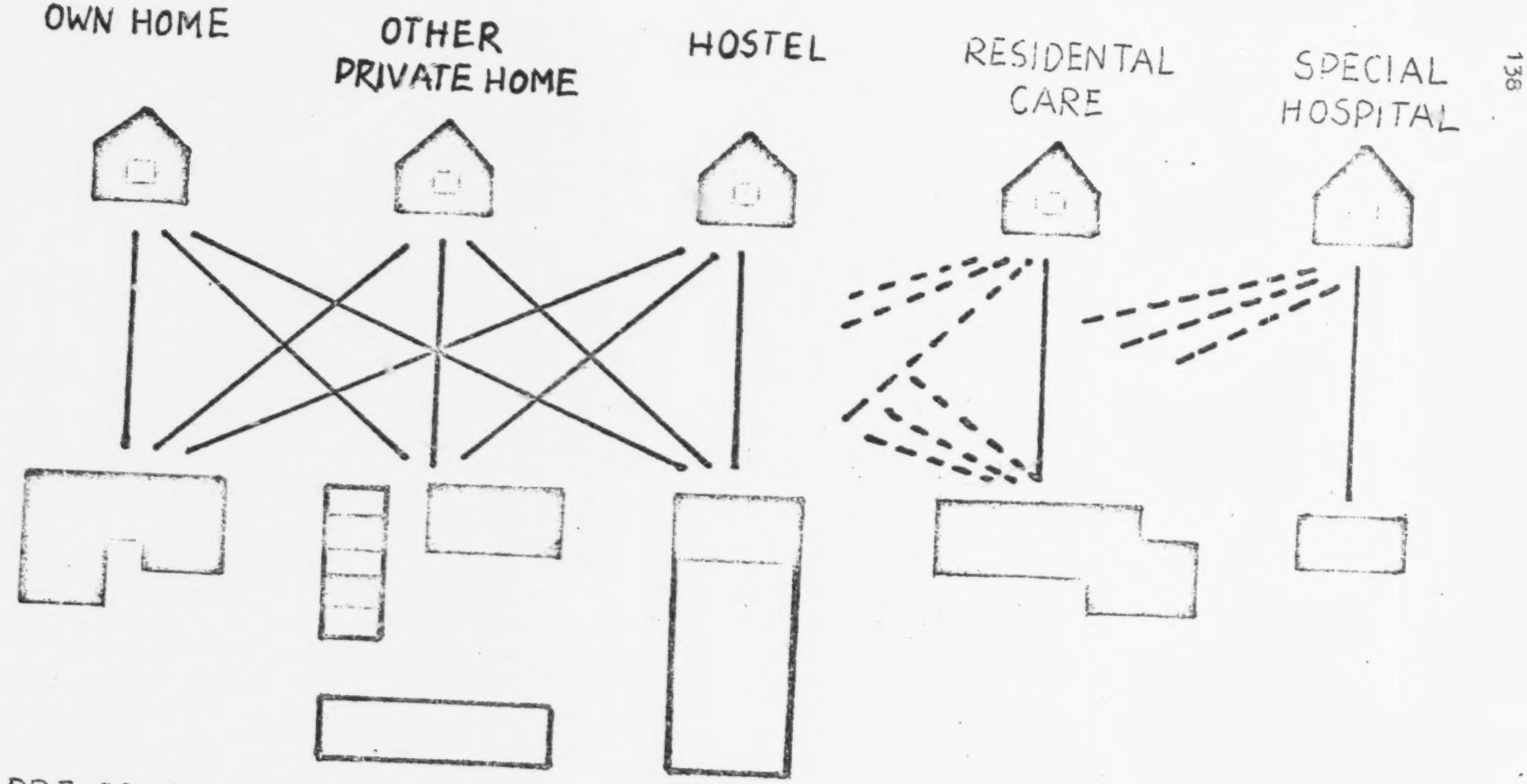
FIG. 6



EDUCATION FOR MENTALLY HANDICAPPED IN SWEDEN

Lars Kjellman
Superintendent of Education
Malmö

Integration of Special Education in the Malmö Area

Malmö is the third largest city in Sweden. In a relatively small area with good communications with the whole southern region are gathered about 300.000 people. Its schoolsystem includes all kinds of schools from the nine year compulsory school to secondary education / both academic and vocational branches for the agegroups 16-18. Also adult education is the concern of the schoolboard of Malmö, which is the only responsible authority for the whole schoolsystem. I might point out that the city of Malmö is not quite typical, at least not as regards the mentally retarded. As Mr Wessman has just told you, the county councils are generally responsible for both the care and education of mentally retarded. Malmö does not belong to the county council, and therefore has to solve its problems within its own area. These circumstances have favoured the integration of all kinds of handicapped children in ordinary schools, as the same authority has had responsibility for all education.

Sweden puts great stress on education and social welfare. The education of the handicapped has for many years been considered an important task and has also been carried out with great care and good results. But the children have been isolated in special schools, where they have been overprotected. Their contact with normally developed children and the community outside school was poor or even nonexistent. Not long ago special schools were consistently located in small isolated places, because such an environment was assumed to be appropriate for the handicapped. In the city of Malmö we have for a long time had special schools for different kinds of handicapped children. During the last ten years, though, we have made great efforts to integrate, if possible, all pupils in the ordinary schools.

Of course, in doing so, you meet with many problems, both human and technical. The old schoolbuildings are not equipped to accomodate children with for instance physical handicaps or hearing difficulties. Sometimes considerable investment is required. Some old schoolbuildings have had to be excluded for technical reasons. Malmö being a fast growing city, makes it necessary to build a number of new schools every year. That makes it possible for us to take into consideration pupils with special needs.

The social problems are numerous but too well-known to all of you. It seems superfluous for an amateur like me to dwell on these in such a qualified assembly. I have, though, made the astonishing experience, that the parents of handicapped children are often opposed to their son or daughter being placed in a normal school. The reasons for their anxiety are easy to understand. Fortunately most of those hesitating generally change their minds after a certain time of trial.

I am glad to state that the pupils and teachers of ordinary classes, as well as other people outside school, have shown a very positive attitude towards the integration of handicapped children. I can't, though, stress enough, the necessity of extensive and objective information given in advance to all concerned.

I will now try to give you a short account of our efforts to integrate the different groups of handicapped children. It is natural to start with the mentally retarded, as they are by far the largest group, and also because the subject of this conference is "Special Education and Rehabilitation of the M R". To integrate this group in an ordinary school environment must, as I see it, be regarded as the most important step towards their rehabilitation and preparation for adult life.

In the year 1915 the first boarding school for MR was opened. It was situated in a charming garden on the outskirts of the town. Those of you taking part in to-morrow's professional tour, will incidentally see the site and the house in question. It is now used for adult MR. In this boarding school 27 MR children, who for different reasons, could not stay in their homes, lived and got all their education. They were certainly treated with love and tenderness, but both the children and the personnel lived in an almost artificial atmosphere. Sometimes the children didn't leave the school site for many weeks. The headmaster, the teachers and the other personnel had to be unmarried (this was true at least till after world war II) and had their board and lodging in the school. The contact with the world outside was scarce. No great insight or imagination is required to realize that an environment like this could not give these children any comprehensive training for the future. The other MR children living with parents went to a small idyllic school in a peaceful surrounding, well separated from the nearest ordinary school.

When, twelve years ago, I became superintendent of Malmö, preparations were already well advanced to build a new separate school for all MR, on the site mentioned before, on the outskirts of the town. Very soon I began to doubt the wisdom of deliberately isolating those children from

their more favoured comrades. We put aside the schoolbuilding project and started to find other solutions. At that time the education of MR was no concern of mine according to the law. A special board had the responsibility for the care of as well as the education of the MR. They could however delegate some responsibility to the general schoolboard. In Malmö there was a long tradition of close cooperation between the two authorities. In 1966 the schoolboard of Malmö was therefore given all responsibility for the education of the MR, with a view to putting at the disposal of this very insignificant group in number all the resources of a well differentiated and economically strong schoolsystem, its pedagogical experience and its specialists of different kinds. Many people protested at the time, as they considered that the living activities of the MR could not be separated from the schoolactivities. The Act of 1968, mentioned by Mr Wessman, at last legalized our "black deed".

We soon found possibilities to establish classes for the MR in ordinary schools. For practical reasons we restricted ourselves to a rather small number of schools. We started with the group of educable MR (ESN), but the last two years have taught us, that also the severely subnormal children or trainable MR (ESN) could without difficulty be placed in ordinary schools. From this autumn, all ESN will be taught in special classes integrated in ordinary schools. Most of the SSN will also form special classes within the ordinary schoolsystem. Those with a very severe handicap, who have to be taken care of in special homes, will have their training in school facilities forming part of the care home.

Preschool education is given in different ways. Some are taken car of in a special school, some form a special group at an ordinary daynursery. Only a few as yet of the age of 3-6 have been integrated in groups of normal children. Our hope is that one day it will be possible to replace the special preschool by sufficient places in ordinary nurseryeschools.

Also the vocational training of the MR is located to ordinary schools. To-day 8 MR get their vocational education in courses intended for slow-learners at our big vocational school. The experiences of that experiment are very good.

One year ago all the pupils living in the old boarding school, could move out from the sheltered dwelling into small houses situated in different areas of the city. Each"home" is managed by a pair of "substitute parents", having their own apartment at one end of the house. Each "home" can take six children. Half of them pay regular

visits to their own homes every weekend. During this year we have seen many proofs of the superiority of this home-like way of living to that of the old boarding school.

The totally new situation for a large portion of MR children, living in small units and going to school like other children offers new problems to solve. More time for supervision must be given to the school by employing assistants. Those with the gravest handicaps, especially those with physical ones as well the very young pupils cannot-with very few exceptions - avail themselves of the public transportation-system. In Malmö, therefore, the fire-brigade has organized transpetation in cars specially equipped for people with different handicaps.

During the journeys home from school the assistant personnel train the pupils to use public buses. Even gravely mentally retarded (SSN) have, after careful training, learnt to travel on their own.

Let me add to this short discription of our efforts to normalize as far as possible both the living and the education of the MR, some words about the other groups of handicapped children. Many of these have traditionally been taught in special classes in the ordinary school (slow-learners, emotionally and socially disturbed children or those with reading or speech difficulties). As Mr Wessman has put it the general aim of the school is to satisfy the demands of these children within the framework of an ordinary class. This development has affected the Malmö schools system for many years now. The special classes have been considerably reduced since 1963, Those for slow-learners by one half. The pupils are (instead) ~~are~~ given auxiliary teaching by special teachers, and more and more not outside the classroom, but in their own habitual surrounding, where two teachers work together. Such a kind of "coordinate special teaching" has been part of experimental work, especially in the new kind of open plan schools that are now being built in new areas of the town.

All those still attending specialclasses (hearing impaired, partially sighted and physically handicapped) go to ordinary schools, where every effort is made to facilitate their transfer to an ordinary class. This is of course easier, if a transfer does not mean moving from one school to another. But it demands a close cooperation between the special teacher and the classroom teacher, which is not always easy to achieve.

And there I see one of the greatest problems we have to face and solve. Integration is a key-word to-day. But what do we mean by it? Sometimes

I think we are quite content to have achieved that integration, by just letting a group of handicapped children occupy a part of an ordinary school or a separate building on the school-site, where they live the same life sheltered from the other pupils as in the old boarding-school. During the breaks they keep or are kept together as one group, and no relations with other children are furthered between the classes. I can't accept that as integration. Real integration means to me accepting those handicapped as equal members of the school-society, giving them a chance to develop by experiencing fellowship with their more fortunate comrades in working with the same subject matter or taking part in common creative activities.

To reach this goal all those working in school must join forces in a deliberate effort to achieve such an integration. I sometimes feel that the real problems don't lie with the special teachers but with the ordinary classroomteacher who must be given much more information of different handicaps during their teacher training. And we need better designed school-facilites. The first humble attempt in Malmö to favour such a development towards "real" integration of the MR is demonstrated by the Örtagårdsskolan (pictures).

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IASSMD - Tuesday Afternoon Seminar
(in Malmö, Sweden, 18.8.1970)

INFORMATION SYSTEMS - SPECIAL EDUCATION

The United States is often viewed as being heavily endowed with resources which operate to the benefit of handicapped children and youth--and there certainly is truth to this statement. But it is also true that the United States has monumental problems in this area which overtax the resources available. For example, it is estimated that there are six to seven million school-aged handicapped children in the United States--a number that comes close to equalling the eight million total population of our host country, Sweden. Even with the resources available, it is estimated that only about 40% of our handicapped children and youth are receiving the special education services they need.

In an attempt to extend the resources available to teachers of the handicapped, a network of special education instructional materials centers was begun in 1964. The purpose of this program is to "acquaint special educators and other interested personnel with valid instructional materials and other information relevant to the education of handicapped children." Since that time, the size, scope, and function of this network has increased significantly, and it is playing a unique role in the education of handicapped children in America. I shall briefly describe the components of this network and their individual functions.

Special Education Instructional Materials Centers (IMCs) - Fourteen regional IMCs are presently in existence. They attempt to provide varying services to special educators in a multi-state area. All IMCs house a large collection of commercially and non-commercially produced instructional materials which are available to any special educator on a loan basis. In addition, the IMCs provide consultation and put on demonstrations, workshops, and seminars in their regions. Their major purpose is to train special educators in the availability, application, and evaluation of materials and methods which are appropriate to the learning needs of individual children. The IMCs have also been active in developing product and program evaluation schemes as well as in the production of new instructional and training materials.

Because of the immensity of their task, the IMCs have needed and received help in carrying out their program. Most of the 50 states, observing the effectiveness of the IMC concept, have established their own centers to work with teachers in their immediate locales. These local centers carry the load of direct services to teachers, which was an impossibility for the regional centers to handle effectively. At the present time, there are approximately 300 local special education IMCs. Both regional and state centers work cooperatively to provide a coordinated program to better meet the needs of handicapped children.

Regional Media Centers for the Deaf (RMCs) - Four RMCs have been established in the United States. Their primary task is to seek new and improved applications for instructional technology in the education of the deaf, develop new materials and media, and train teachers in the development, production, and application of media to the process of educating the deaf.

CEC Information Center - The Information Center, located at the national headquarters of The Council for Exceptional Children, is a member both of the ERIC (Educational Resources Information Centers) system and the Special Education IMC/RMC Network. This center focusses broadly on special education, serving as a comprehensive source for information on research, instructional materials and methods, programs, administration, teacher education, curriculum, etc. As a documentation center, it produces special topic bibliographies and a quarterly journal called Exceptional Child Education Abstracts, and answers direct questions from practitioners. Fifty reports each month are submitted by the Information Center for inclusion in the U.S. Office of Education-sponsored document called Research in Education; additional contributions are also made to another U.S.O.E. document, Current Index to Journals in Education.

Beyond its extensive documentation efforts, the Information Center also produces new information; this includes state-of-the-art reports, reviews of research, analyses of trends, practices, etc.

In an attempt to gather together practical information for teachers to implement in their classrooms, the Center has developed a quarterly journal for teachers, TEACHING Exceptional Children.

International Cooperation - The Council for Exceptional Children is vitally interested in developing cooperative information exchange programs with other countries. While we in the U.S. believe we can make significant contributions to this type of program, we are also convinced that we have much to learn. U.S. educators need this type of association to broaden their own horizons and perspectives. As was mentioned earlier, it is estimated that the U.S. is meeting the special education needs of less than half of its population of handicapped children. Surely, any exchange which might help the U.S. move toward a greater realization of the hoped-for goal of quality education for all its children would be welcomed enthusiastically. We look forward to working closely with all of you and making great inroads in special education in all our countries.